92-910

No.

Supreme Court, U.S.
NOV 1992

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1992

Mary Sue Davis Stowe,

Petitioner,

-against-

Junior Davis

and

Ray King, M.D., d/b/a
Fertility Center of East Tennessee,
(Third-Party Defendant)

Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE SUPREME COURT OF TENNESSEE, AT KNOXVILLE

Rudolph Martin Palmer, Jr., Esquire
21 Summit Avenue
Hagerstown, MD 21740
(301) 790-0684

Attorney for Petitioner

Professor, John W. Brabner-Smith

Questions Presented

There are seven questions presented for review:

A. Are Mary Sue Davis' right to protect her offspring—the seven human embryos at issue—and her right to procreate, fundamental PRIVACY RIGHTS under the applicable principles and precedence?

B. Is the mother's right to protect her offspring enunciated and Constitutionally mandated by Presidential Proclamation 5761, which provides in pertinent part: "NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children..."? (January 14, 1988) (reprinted in Appendix at page 179)

C. Is the very question, in fact, not one of old law of this Court, but rather one of new science of the world; i.e., have not new discoveries in the science of genetics proving the differentiation of each new human being from the moment of fertilization adduced in the record of this case by the testimony of world-renowned geneticist, Dr. Jerome Lejeune, of Paris, France, answered the Court's previous question of when a man is a man?

D. Are the rights of the Appellant, mother, and her preborn in vitro children under the Fifth and Fourteenth Amendments of the U.S. Constitution usurped by the decision of the Tennessee Supreme Court?

E. Is the Declaration of Independence, as the Charter of our nation, controlling in this case as to the law under our Constitutional government of when a new human being is to be accorded Constitutional personhood and protection?

F. Does a father have post-procreation rights to interrupt the development of his children and terminate their lives by his own choosing, a right granted him in the instant case for the first time in the judicial history of the United States by the Tennessee Supreme Court?

G. Does the father's right to privacy include a right to kill by shelf life his own child once that child has been procreated and exists as a living human being, the father having willingly and with great anticipation procreated the child through donation of his sperm for fertilization in an in vitro procedure?

Parties

The parties are the same as they appear in the caption of the case.

TABLE OF CONTENTS

QUESTIONS PRESENTED i

LIST OF PARTIES. iii

TABLE OF AUTHORITIES. vi

ORDERS AND OPINIONS DELIVERED IN THE CASE viii

STATEMENT OF JURISDICTION 1

STATEMENT OF CONSTITUTIONAL PROVISIONS. 1

STATEMENT OF THE CASE 2

ARGUMENT:

A. Are Mary Sue Davis' right to protect her offspring—the seven human embryos at issue—and her right to procreate, fundamental PRIVACY RIGHTS under the applicable principles and precedence? 7-12

B. Is the mother's right to protect her offspring enunciated and Constitutionally mandated by Presidential Proclamation 5761, which provides in pertinent part: "NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children..."? (January 14, 1988) (reprinted in Appendix at page 179) 12-15

C. Is the very question, in fact, not one of old law of this Court, but rather one of new science of the world; i.e., have not new discoveries in the science of genetics proving the differentiation of each new human being from the moment of fertilization adduced in the record of this case by the testimony of world-renowned geneticist, Dr. Jerome Lejeune, of Paris, France, answered the Court's previous question of when a man is a man? 15-16

D. Are the rights of the Appellant, mother, and her preborn in vitro children under the Fifth and Fourteenth Amendments of the U.S. Constitution usurped by the decision of the Tennessee Supreme Court? 16-19

E. Is the Declaration of Independence, as the charter of our nation, controlling in this case as to the law under our Constitutional government of when a new human being is to be accorded Constitutional personhood and protection? 19-23

F. Does a father have post-procreation rights to interrupt the development of his children and terminate their lives by his own choosing, a right granted him in the instant case for the first time in the judicial history of the United States by the Tennessee Supreme Court? 23-24

G. Does the father's right to privacy include a right to kill by shelf life his own child once that child has been procreated and exists as a living human being, the father having willingly and with great anticipation procreated the child through donation of his sperm for fertilization in an in vitro procedure? 24-26

TABLE OF AUTHORITIES

CITATIONS:

Bowers vs. Hardwick,
478 U.S. 186 (1986) 7, 13, 24

Consumer Fed. of Am. vs. Butz,
424 U.S. 966 (1976) 14

Griswold v. Connecticut,
381 U.S. 479, 486, 14 L.Ed. 2d. 510, 85 S. Ct. 1678 (1965) ... 23, 25

Independent Meat Packers Ass'n vs. Butz,
526 F.2nd 228, 235, (8th Cir. 1975) 14

In Re Neagle,
135 U.S. 1, 64 (1890) 14

Meyer vs. Nebraska,
262 U.S. 390, 399-402 (1923) 7

Planned Parenthood vs. Danforth,
428 U.S. 52 (1976) 23

Roe vs. Wade,
410 U.S. 113 (1973) 16

Skinner vs. Oklahoma,
316 U.S. 535 (1942) 7

Thornburgh vs. A-COG,
476 U.S. 747, 793 and note 2 (1976) 24

STATUTES:

U.S. Constitution, Amend. V. 1, 14, 16

U.S. Constitution, Amend. XIV, Sec. 1. ..... 1, 7, 13, 16-19

U.S. Constitution, Amend. Article VI, Section 2. ..... 2, 7

U.S. Constitution, Article II, Section 3 ..... 2, 14

Tennessee Court Rules Annotated, Rule 39 181

OTHER AUTHORITIES:

Act dated July 4, 1776,
The Declaration of Independence. 14, 15, 19-23

Barr, Meyer B.,
Studies in Social and Legal Theories, 129 (1982)..... 20

Blackstone, Sir William,
Commentaries on the Law of England, Section II of the Nature of Laws in General, Cooley Edition (1876)..... 21

Dumbauld, Edward, **Life and Legal Writings of Hugo Grotius,** 60, 63 (1969)..... 20

Edwards, Charles, **Hugo Grotius: The Miracle of Holland,** 50 (1981) 20

Grotius, Hugo, **The Truth of the Christian Religion,** J. Clarke trans. London (1800)..... 20

Lejeune, Dr. Jerome, **The Concentration Can,** 3, 6, 914, 111-112, 117, 126. ..... 4, 10, 12, 16, 18, 22, 26

Schubert, Glendon A., **The Presidency and the Courts,** 354 (1974) 15

ORDERS AND OPINIONS DELIVERED IN THE CASE

The following is the list of Orders and Opinions delivered in this case in chronological order:

DESCRIPTION OF ORDER — FOUND AT

1. Opinion of the Circuit Court of Blount County, Tennessee, dated August 10, 1989. 67

2. Opinion of the Court of Appeals of Tennessee, dated September 13, 1990. 61

3. Decree and Opinion of the Supreme Court of Tennessee, at Knoxville, dated June 1, 1992. 30

Jurisdiction

Jurisdiction of this Court is invoked under Title 28, United States Code, Section 1257 (3).

Review is sought of the Decree of the Supreme Court of Tennessee dated June 1, 1992.

A Petition for Rehearing was filed with the Tennessee Supreme Court on June 11, 1992. Fifteen days later, on June 26, 1992, an amplified Amended Petition for Rehearing was filed with the Tennessee Supreme Court. (See Appendix, page 167). On November 23, 1992, the Tennessee Supreme Court denied the Amended Petition for Rehearing (appended hereto as supplemental Appendix).

The National Charter Provision Involved

The Act dated July 4, 1776 (Declaration of Independence)

Constitutional Provisions Involved

This Petition involves the following provisions of the Constitution of the United States:

1. The Fifth Amendment of the United States Constitution.

2. The Fourteenth Amendment Due Process Clause which states: "Nor shall any state deprive any person of life, liberty or property without due process of law" U.S. Const. amend. XIV Section 1;

3. The Fourteenth Amendment Equal Protection Clause which states: "Nor deny to any person within its jurisdiction the equal protection of the laws." U.S. Const. Amend. XIV Section 1;

4. Article VI, Section 2, the Supremacy Clause, of the United States Constitution.

5. Article II, Section 3, of the United States Constitution.

Statement of the Case

Mr. and Mrs. Davis were divorced in 1989, and both have subsequently remarried. The parties procreated seven human embryos in 1988 prior to their divorce which were frozen and stored then, and continue to be stored now, in a state of cryopreservation in liquid nitrogen. The parties had agreed upon all matters touching and concerning their divorce except the disposition to be made of the seven frozen human embryos which are the subject of this appeal.

Mr. and Mrs. Davis had been married about nine years. They very much wanted to have a family, but after Mrs. Davis suffered five tubal pregnancies her physician advised and she underwent surgery which rendered her incapable of natural procreation. In vitro fertilization remained the only option available to her to have her own child.

Beginning in the fall of 1985, the Davises sought the advice of Dr. Ray King (third-party defendant as custodian of the seven frozen human embryos in this case) and became familiar with and participated in Dr. King's in vitro fertilization program in Knoxville, Tennessee. After some six attempts by the couple to produce a child through the in vitro process, all of which failed, the parties temporarily suspended their participation in the program and sought to obtain a child through adoption. The adoption process did not work, and the parties abandoned adoption attempts and returned to Dr. King to again try in vitro fertilization.

In the fall of 1988, Mrs. Davis had learned of the new cryopreservation program of Dr. King's clinic whereby several ova could be

aspirated, inseminated in the laboratory, and when fertilization took place, human embryos resulted.They could then be implanted or stored in the deep freeze of cryopreservation for future implantation. Mrs. Davis discussed this new technique with her husband, and the parties reentered the in vitro program of Dr. King with the intent of producing a child or children.

In order to prepare her reproductive system to produce ova for insemination, the record reflects that Mrs. Davis underwent many painful, physically tiring, emotionally and mentally taxing procedures, both before and after December of 1988. Mr. Davis donated his sperm as husband and prospective father of their child or children, and Mrs. Davis donated her ova as wife and prospective mother of their child or children for the December 1988 insemination process.

Mr. Davis had spent many anxious hours early in the morning and late at night from 1985 on, waiting at the hospital as a prospective father while Mrs. Davis underwent the aspiration and implantation procedures, awaiting word as to whether he would be a father.

On December 8, 1988, nine ova were aspirated from Mrs. Davis, all nine of which were inseminated with Mr. Davis' sperm and all nine of which became fertilized, and the resulting human embryos were permitted to mature under laboratory conditions, variously developing from the four-cell cleavage stage to the eight-cell cleavage stage, and all were found to be of excellent quality. On December 10, 1988, two of the living human embryos were implanted in Mrs. Davis, neither of which survived the implantation. The remaining seven living human embryos were placed in cryopreservation storage for future implantation processes in hopes of bringing them to birth.

The couple had tentatively planned to implant the rest of the cryopreserved embryos in Mrs. Davis' womb in March or April of 1989.

Before this could occur, Mr. Davis surprised his wife by filing for divorce on February 23, 1989. On March 10, 1989, Mr. Davis filed his third-party complaint against Dr. King's clinic, and the parties agreed to an injunction to prevent any disposition of the embryos until a ruling was entered by the court.

Mr. Davis took the position that he did not wish to be a father

against his will.

Mrs. Davis took the position that he already was a father.

Mr. Davis took the position that their seven frozen human embryos represented only "potential life."

Mrs. Davis took the position that their seven frozen human embryos were "lives with potential." (The attorney who represented Mrs. Davis at the time of her appeal to the Tennessee Supreme Court, perhaps inadvertently, mis-stated Mrs. Davis' position by referring to them as "potential life." Mrs. Davis, in point of fact, believes her children in vitro to be "lives with potential" and her children and never wished to abandon this position.)

Mr. Davis told Mrs. Davis privately that if he were given possession of the embryos, he would destroy them. She told him publically that if the court would not allow her to personally implant them and offer them life, she would rather they be donated anonymously for adoption by an infertile couple who could not otherwise have children so that their children might live. Dr. Lejeune, who came to testify in the case, expressed it thusly: "If the judgment of Solomon, which is pronounced only once every three thousand years, occurs during your lifetime, it's worth a detour!"[1]

The expert testimony of world-renowned geneticist, Dr. Jerome Lejeune of Paris, France, was adduced before the trial court below in August of 1989, and is reprinted in the Appendix hereto at pages 114-165. His testimony was uncontroverted, and, indeed, is not his alone but is the accepted proof and knowledge of the entire scientific world community on the early beginnings of human life.

Judge W. Dale Young of the Blount County, Tennessee, Chancery Court, the trial court below, had to make a decision as to whether or not the frozen human embryos were person or property. If he held them to be persons, he would enter up a custody award as with any other children (which he ultimately did for what he termed these "children in vitro") and if he held them to be property, he would divide them as the silverware or furniture. Dr. Lejeune testified that they were a being, and being human, they were human beings. (Appendix, page 148) Dr. Lejeune further testified that they were person and not property because the were the only property which

1. Lejeune, Dr. Jerome, **The Concentration Can,** page 6

has the property of building themselves. (Appendix, page 134)

Judge Young summarized his salient findings, conclusions and judgment as follows:

1. Mr. and Mrs. Davis undertook in vitro procedures for the purpose of producing a human being to be their child.

2. The seven cryogenically preserved embryos are human embryos.

3. American Fertility Society Guidelines are for intra¬professional use, are not binding upon the Court, but are of probative value for consideration by the Court.

4. The term "preembryo" is not an accepted term and serves as a false distinction between the developmental stages of a human embryo.

5. From fertilization, the cells of a human embryo are differentiated, unique and specialized to the highest degree of distinction.

6. Human embryos are not property.

7. Human life begins at conception.

8. Mr. and Mrs. Davis have produced human beings, in vitro, to be known as their child or children.

9. For domestic relations purposes, no public policy prevents the continuing development of the common law as it applies to the seven human beings existing as embryos, in vitro, in this domestic relations case.

10. The common law doctrine of parens patriae controls children in vitro.

11. It is to the manifest best interests of the child or children, in vitro, that they be available for implantation.

12. It serves the best interests of the child or children, in vitro, for their Mother, Mrs. Davis, to be permitted the opportunity to bring them to term through implantation.

JUDGMENT OF THE COURT: The temporary custody of the seven cryopreserved human embryos is vested in Mrs. Davis for the purpose of implantation. All issues of support, visitation, final custody and related issues are reserved to the Court for consideration and disposition at such time as one or more of the seven human embryos are the product of live birth.

Mr. Davis perfected his appeal, and on September 13, 1990, the Court of Appeals reversed the ruling of the trial court and

required that prior to any disposition of the embryos the parties must agree upon the disposition.

Since Mr. Davis would not agree to any disposition involving implantation of the children in vitro by either Mary Davis or an adoptive mother desirous of bringing them to term and live birth, the decision of the Tennessee Supreme Court of Appeals was essentially a decision against Mary Davis and the lives of her in vitro children.

Mrs. Davis, through counsel, noted an appeal to the Supreme Court of the State of Tennessee, and that court issued its Decree and Opinion on June 1, 1992, affirming the judgement of the Court of Appeals. Appellant, Mary Sue Davis, filed a Petition for Rehearing on June 11, 1992, with the Supreme Court of Tennessee. Fifteen days later, on June 26, 1992, an amplified Amended Petition for Rehearing (Appendix, page 167) was filed with the Tennessee Supreme Court. On November 23, 1992 the Supreme Court of Tennessee denied Appellant's Amended Petition for Rehearing (appended hereto as supplemental Appendix).

The federal questions sought to be reviewed herein were preserved on appeal and enumerated in the Amended Petition for Rehearing filed with the Tennessee Supreme Court on June 26, 1992. (Appendix, page 167

Argument

As enunciated in Rule 10.1 (c) of this Court one of the character of reasons that will be considered in granting review on Writ of Certiorari is . . . "When a state court or a United States court of appeals has decided an important question of federal law which has not been, but should be, settled by this Court, or has decided a federal question in a way that conflicts with applicable decisions of this Court."

A. Are Mary Sue Davis' right to protect her offspring the seven human embryos at issue—and her right to procreate, fundamental PRIVACY RIGHTS under the applicable principles and precedence?

The Opinion of the Tennessee Supreme Court conflicts with and misapprehends the controlling principles and precedents of the Federal Right of Privacy under the Due Process Clause of the Fourteenth Amendment of the United States Constitution. A liberty interest is only accorded the status of a Federal Right of Privacy where such interest is so rooted in the tradition, history and conscience of the American people as to be ranked as fundamental. See *e.g. Bowers vs. Hardwick* 478 U.S. 186 (1986). Mary Sue Davis Stowe's right to protect her offspring—the seven human embryos at issue—and her right to procreate are fundamental privacy rights under the applicable principles and precedents. See *e.g. Meyer vs. Nebraska* 262 U.S. 390 399-402 (1923), *Skinner v. Oklahoma* 316 U.S. 535 (1942).

Any suggested lack of federal or state Constitutional personhood for human embryos, moreover, cannot destroy Mary Sue Davis Stowe's fundamental right to value these parties human embryos as unique individuals and as her offspring and to exercise her fundamental right to protect them through the balance of their gestation process.

Mary Sue Davis Stowe's greater physical burden in the in vitro fertilization process and in any future such processes in combination with her desire to value and protect her offspring, constitutionally mandate that her wishes, rather than those of Junior Davis, be honored. Moreover, under the *Supremacy Clause* no purported state law right or interest of Junior Davis may usurp Mary Sue Davis Stowe's Federal Privacy Right. See *United States Constitution* Article VI, Section 2.

The Tennessee Constitution Article 1, Section 34, generally states that the legislature shall make no laws recognizing a right of property in man. That mandate, which ostensibly only applies to the legislature, certainly was not intended to allow the courts of this State to recognize a right of property in man. The human embryos, as the offspring, descendants or progeny of man ARE MAN and cannot be treated as property or placed in an "interim classification" that

treats them as less than man. Dr. Lejeune, when he was called to the stand in the trial court below quoted Oliver Wendell Holmes: "A man is a man is a man," (Appendix, page 153) a certitude that Oliver Wendell Holmes discovered a long time ago. Dr. Lejeune explained that the new human being is fully differentiated as the man (or human) he will be from the instant of fertilization and that science now knows conclusively from recent discoveries of the past several years that nothing new is added. (Appendix, pages 120, 129) Dr. Lejeune explained that science has always used the term "human embryos" to refer to the new human being from the first two¬cellular stage on, immediately following fertilization. (Appendix, page 137) He explained that in medical dictionaries there has never existed the term "preembryo." (Appendix, page 126)

New findings (especially Jeffries of England) definitely prove complete differentiation from fertilization and that from the very beginning there exists an embryo. (Appendix, page 167) The Honorable W. Dale Young of the trial court below found that there was no such term as "preembryo" and that the term was used in the context of this case to create a false distinction that does not exist. (Appendix, page 67) Judge Young further concluded that the seven cryogenically preserved entities are human embryos (Appendix, page 67). Mr. Davis, both in the trial court below and on appeal, has attempted to dehumanize his preborn children as human embryos by referring to them as "preembryos", a false classification invented by the American Fertility Society. Judge Young indicated in his Opinion that a thorough search of encyclopedias and dictionaries of which the Court may take judicial notice failed to turn up the word "preembryo" defined nor was the Court able to even find reference to that term. (Appendix, page 75)

In denying Mary Sue Davis Stowe's right to protect her offspring and return the seven human embryos to the warmth of life so that they themselves may develop to term and be brought to live birth, the Supreme Court of Tennessee has itself adopted this term "preembryo" to refer to the human embryos.

Judge Young went to great lengths to adroitly point out that both Dr. King, in his own handwritten notes referred to them as "embryos" and Professor John A. Robertson, who testified on behalf of Mr. Davis, in a paper finished in July of 1989 dealing specifically with

the case at bar, himself referred to them time and again as "embryos," although both Dr. King and Professor Robertson at trial used the term "preembryo." (Appendix, page 75)

Dr. Lejeune's testimony and the ruling of the American jurist, The Honorable W. Dale Young, was received with great interest in France, and both the testimony of Dr. Lejeune and the ruling of Judge Young were printed in their entirety in the French publication, *L'Enceinte Concentrationnaire, d'apres minutes due Proces de Maryville.* Dr. Lejeune was asked to write the forward to that publication and the subsequent English version, *The Concentration Can.* Dr. Lejeune received the first Kennedy Award from President Kennedy for the discovery of the extra chromosome responsible for Down's Syndrome as well as the William Allen Memorial Medal, the highest award given in the field of genetics. He was also elected a member of the American Academy of Arts and Sciences and is a member of the Swedish Academy of Science, the Italian Academy of Science, the British Society of Medicine, the Argentinian Academy of Science, the Danish Academy of Science, and the Pontifical Academy of Science. He is also a member of the Acadamie de Science Morale et Politique, the French Academy, in Paris. This writer would respectfully proffer that the succinct speech and beauty of prose that flows from the pen of Dr. Lejeune would speak to the fine minds of this Court better than the humble pen of this writer, and your petitioner begs the indulgence of the Court to allow the writer to quote directly from Dr. Lejeune as he explains the matters which must be proffered before this Court in argument.

Dr. Lejeune stated:

> The innovation at Maryville (Tennessee) was to name a curator of the deep freeze. Packed together in thousands in a container refrigerated by liquid nitrogen, reduced to a number entered on a register, deprived of all liberty in a frozen world where time itself was stopped, these extremely young human beings were confined in a **concentration can.**
>
> The judge at Maryville understood me and so did the American journalists. Still, after the testimony they wanted to verify the term: you really said "concen-

tration can"? That is what I confirmed.

Meanwhile, in France it was translated as "concentration camp," a doubly faulty translation. In the first place, it is a can and not a camp, and, further, the concentration camp was a means of accelerating death, whereas, the concentration can was a means of slowing down life.

It is true that in both cases, the concentration wall imprisons innocents.[2]

Dr. Lejeune went on to state:

In this trial, which goes to the heart of the real, the judge, the Honorable Dale Young, appealed to the greatest English poet to resolve a fundamental question of the human embryo.

The argument, which will be found set out in the Appendix to the Opinion of the Court, was in the most technical sense of the term a nominalist quarrel. The partisans of the non-humanity of the most extreme youth strove to use a meaningless neologism, the term preembryo. Meaningless scientifically, because before the embryo there are only the egg and the sperm, and inasmuch as no one of them has achieved fertilization, no new being exists. There is, therefore, no preembryo, since by definition the embryo is the youngest form of a being.

But this semantic contortion is heavy with implications since in designating the seven frozen little ones preembryos, one can let oneself believe that they do not merit the respect that one would perhaps accord to embryos recognized as such.

---

2. Lejeune, Dr. Jerome, **The Concentration Can,** pages 9-10

Perhaps no other judge would have dared to cite as support the tender Juliet pleading for Romeo:

'Tis but thy name that is my enemy.
Thou art thyself, though not a Montague.
...What's in a name? that which we call a rose
By any other name would smell as sweet.

And that's the end of the argument. When the meaning of name can decide a life, doesn't wisdom demand that we refer the case to true love?

In this unprecedented trial the judge at Maryville had to make a judgment about human nature, about a being at its beginning. Presented with this new case, the court had to pronounce the law, nothing but the law, but the whole law, such as it was recorded in the authentic acts of the state of Tennessee, and such as it is inscribed in its fullest profundity in the heart of men.

The nominalist debate of what is a name, what is a man pervaded the whole trial. When life itself is at stake, words change meaning; or rather they acquire their true significance.

Take the case of divorce:

All property must be divided between the parties, all possessions split or, if necessary, disposed of, sold so that the settlement can be made in cash.

But splitting or selling solves nothing for our species; children are a good that cannot be divided; they are the property of no one.

Without re-establishing slavery there is no third term, no middle road between the human that the law protects and the rest, of which one disposes as he pleases.

All other action at law provokes quibbling about the rights of the opposed procreators or the duties of

parents, but in the case of divorce it is necessary to dispose of things or deliver persons into custody.

Something or someone? The law must decide.[3]

Dr. Lejeune went on to state:

How much times does it take to make a man?

Napoleon said that twenty years were necessary, but he meant conscripts that one could send to war.

A whole lifetime, at least, said a philosopher . . . and then eternity, adds the believer.

Different views on the duration, but when is the beginning?

For all living beings that arise from sexual reproduction, each new being begins when information coming from the father with the sperm comes upon the information coming from the mother in the egg. **As no other information will enter later on into the zygote, the fertilized egg, one is forced to admit that all the necessary and sufficient information to define that particular creature is found together at fertilization.**[4]

B. Is the mother's right to protect her offspring enunciated and Constitutionally mandated by Presidential Proclamation 5761, which provides in pertinent part: "NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children . . ."?

3. Lejeune, Dr. Jerome, **The Concentration Can,** pages 11-13

4. Lejeune, Dr. Jerome, **The Concentration Can,** pages 111-112

(January 14, 1988) (reprinted in Appendix at page 179)

The opinion of the Tennessee Supreme Court is violative of an Executive Order, Presidential Proclamation 5761, issued by Ronald Reagan on January 14, 1988, which recognizes Fourteenth Amendment Rights of personhood apply to children from conception. Said Proclamation is the law of this land. It has not been contravened by any Federal legislation. The Supremacy Clause gives it greater weight than any other State legislative actions. Judicial notice of the Presidential Proclamation is also required. A copy of said Presidential Proclamation is appended hereto and made a part hereof (Appendix, page 179) and provides in pertinent part for the "...God-given, unalienable rights possessed by every human being; and the example of our determination to secure those rights and to defend them against every challenge through the generations.

> ... NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children. Upon this act, sincerely believed to be an act of justice, warranted by the Constitution, I invoke the considerate judgment of mankind and the gracious favor of Almighty God."

This Presidential Proclamation 5761 declaring "the unalienable personhood of every American from the moment of conception until natural death" is positive Federal law in the absence of conflicting legislation by Congress, ascribing personhood to the preborn child under the Fourteenth Amendment, and imposes "due process" protection of the Fifth and Fourteenth Amendments for every preborn child from conception, effectively obviating State laws or court decisions failing to recognize and alienating said rights.

The unalienable right to life is "so rooted in our traditions and consciences as to be fundamental" see *Bowers v. Hardwick,* 478 U.S.

186, 1986; it is vested by the "law of nature and nature's God" foundational to the Declaration of Independence; it is guaranteed by the requirements of "due process" and "equal protection" in the Fifth and Fourteenth Amendments; and it provides a basis for a judicial decision independent of the requirements of Proclamation 5761.

Like President Lincoln's Emancipation Proclamation, this Proclamation 5761 is a public law. It was issued by President Reagan pursuant to his "Executive Power" authority and obligation to "take care that the laws be faithfully executed" under Article II of the United States Constitution. Indeed, Proclamation 5761 by President Reagan is just as sweeping as that of President Lincoln in freeing the slaves, both of which guaranteed *life to humans* who were defenseless and oppressed. Strongly held opinions on each side of the issue existed. Presidents, in equally critical times in our Nation's existence, have moved politically by way of proclamation to change the course of history.

Ample Constitutional and other legal authority support Proclamation 5761. *Independent Meat Packers Ass'n vs. Butz,* 526 F.2nd 228, 235 (8th Cir. 1975), cert. denied, *Consumer Fed. of Am. vs. Butz,* 424 U.S. 966 (1976), invalidated a Presidential Proclamation because it cited no specific source of authority other than generically "the Constitution and laws of the United States." However, Presidential Proclamation 5761 enumerates eight different bases for its declaration of the "unalienable personhood of every American from the moment of conception until natural death" as law. They are: 1) the Declaration of Independence; 2) the Constitution (Article II, Section 3) that every President is sworn to preserve, protect and defend; 3) the Fifth Amendment; 4) The Fourteenth Amendment; 5) our history; 6) our heritage; 7) our concepts of justice; and 8) recent medical and scientific evidence. Proclamation 46, 3 C.F.R. 3 (1988 Comp.). The U.S. Supreme Court has unequivocally held that the duty of the President pursuant to the Constitution, Article 2, Section 3, which obligates him to "take care that the laws are faithfully executed" is not limited to express laws of Congress and express terms of treaties, but includes "the rights, duties and obligations growing out of the Constitution itself . . . and all the protection implied by the nature of the government under the Constitution." *In Re Neagle,* 135 U.S. 1, 64 (1890).

Thus, the scope of the Executive Power extends to the Constitution, its interpretation and execution. Otherwise, the President's oath of office to "preserve, protect and defend the Constitution" is meaningless. Consequently, as an independent branch of the government, the Executive is obliged to make his own interpretation of the meaning of the Constitution on matters committed to that office.

It is the duty of the courts to uphold the constitutionality of the President's action. Great weight is accorded the President's own interpretation and construction of his powers. The courts will assume that the President has complied with the requirements of the law. (Glendon A. Schubert, Jr., *The Presidency and the Courts* 354 (1974) (comprehensive listing of Presidential Orders from 1919-1953).

C. Is the very question, in fact, not one of old law of this Court, but rather one of new science of the world; i.e., have not new discoveries in the science of genetics proving the differentiation of each new human being from the moment of fertilization adduced in the record of this case by the testimony of world-renowned geneticist, Dr. Jerome Lejeune, of Paris, France, answered the Court's previous question of when a man is a man?

There is a paucity of United States Supreme Court authority that would be controlling in the instant case for the very reason that this case is, in fact, one of first impression and its resolution is not to be built upon the building blocks of old case authority, but rather, its resolution is to be laid upon the foundation stone of the law above the law recognized in the Declaration of Independence upon which all law is based and from which all law flows.

We must go back, as did Abraham Lincoln when issuing the Emancipation Proclamation, to the Declaration of Independence for the ultimate answer. We must remember that Abraham Lincoln in the *Dred Scott* debates preceding his election to the presidency gave as his answer to the equal humanity and personhood of the black man, which was disavowed by this Court in its *Dred Scott* decision, that he went beyond the *Dred Scott* decision of the Supreme Court; that he went beyond the Constitution; that he went back to the Declaration of Independence that provided, properly and in accord

with ultimate law, "That all men are created equal and endowed by their Creator with certain unalienable rights. That among these are life, liberty and the pursuit of happiness."

Quoting again from Dr. Lejeune in *The Concentration Can:*

> On September 2, 1989, Judge Dale Young rendered his opinion, entrusting to their mother the care to liberate her little ones from the concentration can.
>
> . . . permit all men of good will to see that the judicially impeccable and maturely reflected decision is a definitive reference for American justice.
>
> It established the humanity of the youngest humans.
>
> It recognized that the embryo is not the property of anyone since it alone in the world possesses the property of developing its own person.[5]

Viability was defined by this Court as "the ability to exist by natural or artificial means outside of the womb." *(Roe v. Wade,* 410 U.S., 113, 1973) Science has met the test and furnished the proof in this case, since the human embryo is clearly proven to exist on its own outside of the womb in a petri dish (artificial means) or stored in liquid nitrogen and when returned to the warmth of life and implanted in the womb will grow to fruition and birth. A lawyer's inclination when writing a brief to be read by this Court is to attempt to sound scholarly basing all he says upon a recitation of past opinions of this Court. But the truth is that this case is not a matter of old law of this Court but of new science now known to the world. This case is also about the very old law recognized in the Declaration of Independence.

D. Are the rights of the Appellant, mother, and her preborn in vitro children under the Fifth and Fourteenth Amendments of the U.S. Supreme Constitution usurped by

---

5. Lejeune, Dr. Jerome, **The Concentration Can**, page 14

the decision of the Tennessee Supreme Court?

By creating an artificial interim classification for human beings that is neither person nor property, the Supreme Court of Tennessee has effectively recreated slavery and doomed to death by shelf life the rights of these human embryos as living children in vitro and the rights of their mother to return her children to the warmth of life and to live birth.

Dr. Lejeune, when speaking of these seven frozen human embryos in **The Concentration Can,** stated:

> That is, until confirmation by the court of appeals (i.e., the United States Supreme Court), it reduces continually the possibilities of delivery. For the seven deep-frozen little ones, the later it gets, the worse is their chance of survival.
>
> No one knows if they will survive the manipulations that they have undergone. Certainly, their mother is without doubt their best chance of salvation, humanly and physiologically. But will they leave the concentration can without damage?
>
> At this point in the reflection, a sort of chant rises up in the memory, a recollection of our childhood, a popular ballad, the embellished story of Saint Nicholas.
>
> Do you remember those children?
>
> > Then there were three
> > little children who went
> > to gather in the fields.
>
> Then enters a disreputable butcher who shut them up in his salting tub (they did not have refrigeration in those days). And, many years later, there is the great Saint Nicholas, who happened to pass by, and who

> justly demanded the return of the children 'that were in the salting tub for seven years' and who called the children back to life.
>
> God wants Mary's sevenfold hope to become children, what a miracle would have thus been brought about by the judgment of Maryville!
>
> Carrying on the judgment of Solomon in rendering justice to the mother, Judge Young entered history.[6]

This Court can add its imprimatur and enunciate Constitutional acknowledgement of what new science now proves. The rendering of such an imprimatur would demand the return of these little children and uphold the foundational principles of the Charter of our nation, the Act of July 4, 1776.

One man's horizon is another man's foreground. The Tennessee Court of Appeals and the Tennessee Supreme Court are both unable to view the preborn child as other than undifferentiated cells, and this is the edge of their world, their horizon. This horizon becomes for Judge Young his foreground, as he took pen in hand to write his judgment, based as it was upon the truth found in science that it is now the constant marvel of the scientist from new proofs in just the past several years that each new human being is fully differentiated from the very beginning, with nothing to be added, possessing within herself the smallest blueprint of the universe to build and knit herself together in the temple of the womb. We are fearfully and wonderfully made.

Dr. Lejeune has been our Galileo here, establishing in the record the knowledge of the entire scientific community. Just as Galileo in his day demonstrated that one man's horizon is another man's foreground by showing that the Earth is round, so Dr. Lejeune has rounded out the complete proof of the humanity of the preborn children (which this Court stated twenty years ago it awaited) which Judge Young ruled to be children in vitro. Disciples of Ptolemy and the flat earth society in that they fail to see human life in the

---

6. Lejeune, Dr. Jerome, **The Concentration Can**, page 15

smallest size we all once were, given the scientific proof of our own very, very small beginnings.

Whenever a problem is encountered where a state has infringed on an individual's fundamental rights under the first Ten Amendments to the United States Constitution, it can and should be argued that the State action denies the individual due process under the Fourteenth Amendment.

As such, the rights of Mary Sue Davis' children in vitro, having been established to be children in vitro by the uncontroverted scientific testimony in the record of the trial court below, are usurped by the Tennessee Supreme Court by the unscientific application of a word of language which euphemistically denies the reality of their humanity as scientifically proven.

Mr. Davis has incorrectly been given a "right" superior to the human embryos because he is considered a "person" under historic Fourteenth Amendment interpretations and the human embryos were not. However, the human embryos are entitled to full Fourteenth Amendment rights of "persons" under Presidential Proclamation 5761, more fully discussed in Question B.

E. Is the Act dated July 4, 1776, the Declaration of Independence, as the charter of our nation, controlling in this case as to the law under our Constitutional government when a new human being is to be accorded Constitutional personhood and protection?

On July 2, 1776, the Second Continental Congress, which was then the government of the united colonies, voted to become independent of Great Britain. An Act dated July 4, 1776, the Declaration of Independence, created a new international political corporation. This charter set forth its purpose for existence. This Declaration based legal existence upon "the laws of nature and of nature's God," in order for the now-united colonies to take a place "among the powers of the earth." This was the foundation of all international states, including the United States, according to Hugo Grotius of Holland and France, known as the "Father of International Law." The "natural law" of Grotius and of western civilization is based upon this concept of a universe created and controlled by a supreme supernatural Sovereign, with human beings made in His image (Imago

Dei), to live in community (Societatem), tranquilly with fellow men, in order to survive as a distinct species.

"This tendency to the conservation of society, which tendency is in agreement with the nature of the human intellect, is the source of 'Jus', or natural law, properly so called."[7] So concludes Grotius. Among principles he mentions which are derived from this Natural Law are: abstaining from what belongs to others; fulfilling promises; reparation of damage done through fault; and recognition of actions deserving punishments. Grotius called it "the Primary Law of Nature."

Giving unintended homage to Grotius, a number of political scientists over the years have seized on one phrase in all of this scholar's writings to justify the secular, materialistic view of natural law. They refer to his remark that certain rules of conduct follow from man's natural need to live in society. Grotius wrote that natural law is valid even, **"if there were no God,** but since there is, we are bound to obey Him."[8] Then Grotius concludes that God has made His will known by the laws set forth in His writings, the Scriptures.There, certain "laws" are given consistent with His Natural Law, for instance, the "Ten Commandments."[9] So our Declaration reads, "the Laws of Nature and of Nature's God" Both natural and divine law of God.

For all Grotius' life, including his greatest work, the Sixteenth Century "bestseller," *The Truth of the Christian Religion,* he accepted and proclaimed the God of the Bible as Sovereign of the universe, and the author of Natural Law.[10]

"Our Lord" is acknowledged as sovereign of this nation by dating our laws and Presidential Proclamations "in the year of our Lord" and "A.D." (Anno Domini).The Continental Congress, and every President from George Washington to George Bush, has, in Inaugural messages, recognized the dependence of our nation upon the blessings of an all-powerful Divine Being.

Legal education, for almost a century, has been limited to the

---

7. Barr, Meyer, B., **Studies in Social and Legal Theories,** page 129
8. Edwards, Charles, **Hugo Grotius:The Miracle of Holland,** page 50
9. Dumbauld, Edward, **Life and Legal Writings of Hugo Grotius,** page 63
10. Grotius, Hugo, The Truth of the Christian Religion, J. Clarke Trans., London (1800)

study of law as a science, a process. This overlooks the purpose of acquiring knowledge. The concept of Justice, as a substantive product, as "a law above the law," gradually disappeared. The courts, called by Lincoln "Courts of Justice," are now called the "Law Courts."

Grotius was also the father of the philosophy of political science. He showed that Civil Law, the law of the state, is derived from the Natural Law. The latter requires observance of compacts, which is fulfilling agreements.Criminal law, property and tort laws are other examples of Positive Law (rules enacted by political governments, sometimes called secular or civil law) derived from the Natural Law.

Although the British legal scholar, Sir William Blackstone, in the 18th century, recognized the sovereign power of Parliament to make the civil laws of England, he always asserted that this Natural Law of God was the supreme law of England and of its colonies.[11] Upon that same principle, George Mason and other leading colonial lawyers argued in justification of the legal right to rebel against British colonial government. Its agents were denying to the Colonists their Natural Law rights.

Utility, which recently has been suggested as the source of all Law, is rather an occasion of it. It is also now suggested that return of the Supreme Court to Natural Law will end the recent advances in individual rights effected by a majority of its justices in recent years. The very purpose of government, under the Natural-Divine law concept of the United States, is to protect and promote individual rights, including those unalienable rights of Life and Liberty and the Pursuit of Happiness. This is of the essence of true Natural Law.

Some law scholars deny the existence of Natural Law, asserting that the only law is Positive Law. Natural Law is no longer taught in many law schools.Nevertheless, it was made the basis for the Nuremberg war crime trials and execution of Nazi leaders who planned and waged a war of aggression. Quoting again from Dr. Lejeune in *The Concentration Can,* he stated:

> At Nuremberg, the horrible affirmation that
> 'a prisoner is not a man, thus one can

11. Blackstone, Sir William, **Commentaries on the Law of England,** Cooley Edition (1876)

> exploit him', had been condemned, it was believed forever. The same twisted notion reappears today, modernized, disinfected and miniaturized: 'An embryo is not a man, thus To make the exploitation more acceptable, they believe, some pretend to utilize only the extra embryos, those remaining in concentration cans after realization of the objective of the trustees and donors of the gametes. To that claim of a more moderate appearance, history has already responded, in other circumstances and on older subjects, but the response is always valid. It is not a matter of caviling over whether one has the right or not to try this or that on those who are enclosed; it is the concentration, the confinement itself, that must be "Strengstens Verboten".[12]

The Constitution, The Bill of Rights, and similar Amendments, as distinguished from the Declaration of Independence, are Positive Law only.

Grotius said there are laws of nature and laws of God; they are complementary, and they bind nations as they do individuals. So they became the foundation of our United States by the Act of the government of this nation dated July 4, 1776, the Declaration of Independence. It is based upon "the laws of nature and of nature's God." This law was accepted by the legislature of each of the states, including Tennessee, as their basic law, as well as that of the United States. God's natural laws complement God's laws concerning the spiritual world, both essential for an understanding of this nation/state.

It is obvious that many, who have no understanding of Natural Law, employ the phrase to support a premise they are promoting or denouncing. The "Scientific method" has been enjoyed while ignoring the purpose of science (scientia). That purpose is to

---

12. Lejeune, Dr. Jerome, **The Concentration Can,** pages 117-118

increase man's knowledge of the universe, the true Laws of Nature and their source.

F. Does a father have post-procreation rights to interrupt the development of his children and terminate their lives by his own choosing, a right granted him in the instant case for the first time in the judicial history of the United States by the Tennessee Supreme Court.

The living human embryos exist in the very cool liquid nitrogen in a state of suspended time. Upon being returned to the warmth of life, time will begin for them again. Dr. Lejeune pointed out that it is curious that an incredible wisdom exists in the language in that the same Latin root (tempus, tempare) is used for two words that are ordinarily unrelated the two words being "time" and "temperature." (Appendix, page 124) Dr. Lejeune went on the explain that as we lower the temperature, we slow down time, so that as we approach absolute zero, time stands still. (Appendix, page 125)

Although this is not an abortion case (if it were an abortion case, Mr. Davis could not have anything to say about the fate of his children), reference is respectfully made to the opinion of this Court in *Planned Parenthood v. Danforth*, 428 U.S. 52 (1976). This Court opined in pertinent part as follows:

> We are not unaware of the deep and proper concern and interest that a devoted and protective husband has in his wife's pregnancy and in the growth and development of the fetus she is carrying. Neither has this Court failed to appreciate the importance of the marital relationship in our society. *See, e.g., Griswold v. Connecticut,* 381 U.S. 479, 486, 14 L.Ed. 2d 510, 85 S. Ct. 1678 (1965); Maynard v. Hill, 428 U.S. 70, 31 L.Ed. 654, 8 S. Ct. 723 (1988).
>
> We recognize, of course, that when a woman, with the approval of her physician but without the approval of her husband, decides to terminate her pregnancy, it could be said that she is acting unilaterally. The

> obvious fact is that when the wife and the husband disagree on this decision, the view of only one of the two marriage partners can prevail. Inasmuch as it is the woman who physically bears the child and who is more directly and immediately affected by the pregnancy, as between the two, the balance weighs in her favor. *Cf. Roe v. Wade,* 410 U.S., at 153, 35 L.Ed. 2d. 147, 93 S. Ct. 705.
>
> *Id.* at 803-806

Danforth stands for the proposition that where it is the mother who chooses death by abortion of the preborn child, the husband does not have a unilateral right to overrule that decision and choose life. (At least he does not have that right automatically without the provision for a hearing before a trier of fact and a weighing of the equities and rights of the parties.) The judgment of the Supreme Court of Tennessee, if left in its present posture, stands for the proposition that when a mother of children (children in vitro in this case) chooses life for the children, the father has a unilateral right to choose death for the children (children in vitro in this case, which he prefers to think of as preembryos in order that he may anesthetize his mind to the reality of their living humanity).

G. Does the father's right to privacy include a right to kill by shelf-life his own child once that child has been procreated and exists as a living human being, the father having willingly and with great anticipation procreated the child through donation of his sperm for fertilization in an in vitro procedure?

A liberty interest is only accorded the status of a Federal Right of Privacy where such interest is so rooted in the tradition, history and conscience of the American people as to be ranked as fundamental. *See e.g. Bowers vs. Hardwick* 478 U.S. 186 (1986). Under the tradition and history of the American people, Mr. Davis' liberty interest in insuring the destruction or demise of the human embryos cannot be considered fundamental. *Thornburgh vs. A-COG,* 476 U.S. 747, 793, and note 2 (1986) White J. (dissenting) (fundamental right of parent to make a decision regarding the upbringing of child does

not extend to assault committed upon child)

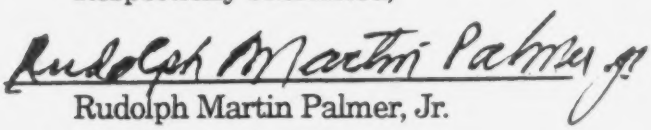
The existence of these seven human embryos outside the mother's body cannot strengthen the father's right to demand their destruction as such act retains its disfavored and destructive nature.

Additionally, the Tennessee Supreme Court misapprehended a material fact and related propositions of law in that the Court has allowed Mr. Davis "not to become a father against his will" after he has already *intentionally* become a father. Once he has donated his sperm as husband and prospective father of their child or children, it is too late to exercise his right "not to become a father" because the process of bringing a new life into the world has already begun. Mr. Davis had spent many anxious hours early in the morning and late at night from 1985 on, waiting at the hospital as a prospective father while Mrs. Davis underwent the aspiration and implantation procedures, awaiting word as to whether or not he would be a father. Unquestionably, a father has the right to use contraceptives to prevent pregnancy. See *Griswold v. Connecticut,* 381 U.S. at 484 485, 85 S.Ct. at 1681 1682. The instant case, however, does not involve an element of contraception, but since contraception itself simply prevents the coming together of the male sperm and female ovum, Mr. Davis waived his right not to beget a new life when he consensually and expectantly took part in the process of facilitating the bringing together of his sperm and his wife's ovum in the hope of creating a life or lives in being. Mr. Davis has already become a father seven times by the intentional creation of the seven human embryos. To give Mr. Davis post-procreation decision-making authority in the human reproductive process has no ends. If any decision-making right is allowed past procreation, his right "not to beget", "not to procreate", or "not to become a father" could be construed as allowing a natural father to preclude the live birth of a child the day before its birth, which this Court certainly and hopefully would not sanction. Accordingly, there is no better point of demarcation than to assign the father's rights at procreation. He has a pre-procreation right not to become a father, but post-procreation he cannot have that right or chaos will result.

It seems appropriate to close with a statement by this kindly man, Dr. Jerome Lejeune: "On this planet man is the sole being to ask who he is, where he comes from, and to hear sometimes the

terrible question: What have you done to your brother? What have you done to your child?"[13]

Respectfully submitted,



Rudolph Martin Palmer, Jr.
21 Summit Avenue
Hagerstown, MD 21740
(301) 790-0684

ATTORNEY FOR PETITIONER

13. Lejeune, Dr. Jerome, **The Concentration Can**, pages 126

APPENDIX

INDEX TO APPENDIX

DECREE AND OPINION OF THE SUPREME COURT OF TENNESSEE, AT KNOXVILLE 30

OPINION OF THE COURT OF APPEALS OF TENNESSEE 61

ORDER AND OPINION OF CIRCUIT COURT OF BLOUNT COUNTY, TENNESSEE 67

TESTIMONY OF DR. JEROME LEJEUNE 114

AMENDED PETITION FOR REHEARING 167

PRESIDENTIAL PROCLAMATION 5761 179

TENNESSEE COURT RULES ANNOTATED, RULE 39 181

Supreme Court of Tennessee, at Knoxville
September Term, 1991

JUNIOR LEWIS DAVIS,
Plaintiff-Appellee,

vs.

MARY SUE DAVIS,
Defendant-Appellant

Filed: June 1, 1992
Robert W. Summar, Clerk
Blount County

COURT OF APPEALS
AFFIRMED

S/C No. 34

Decree

This cause coming on to be heard upon a transcript of the record from the Chancery Court of Blount County, briefs of the parties, and oral argument of counsel, upon consideration whereof the Court is of the opinion that in the judgment of the Court of Appeals, there is no error.

It is, therefore, ordered and decreed by the Court that the judgment of the Court of Appeals is affirmed and this cause is remanded to the trial court for enforcement of this judgment and for such further proceedings as may be necessary consistent with the Opinion of this court, a copy of which shall accompany the mandate on the remand to the trial court.

Costs of the appeal are adjudged against the Defendant.-Appellant Mary Sue Davis, for which let execution issue. This cause is remanded to the trial court aforesaid for collection of the costs adjudged therein.

Martha Craig Daughtrey
Lyle Reid
Frank F. Drowota
Charles H. O'Brien
E. Riley Anderson

In the Supreme Court of Tennessee at Knoxville

JUNIOR LEWIS DAVIS,
Plaintiff-Appellee,

vs.

MARY SUE DAVIS,
Defendant-Appellant

For Publication

Filed: June 1, 1992

No. 34

Blount County

The Hon. W. Dale Young, Judge

For the Appellee:

CHARLES M. CLIFFORD
Maryville, Tennessee

For the Appellant:

KURT ERLENBACH
503 South Palm Avenue
Titusville, Florida

For the Amici Curiae American Fertility Society, et al.:

BARRY FRIEDMAN
Nashville, Tennessee

ELLEN WRIGHT CLAYTON
Nashville, Tennessee

JANET BENSHOOF
RACHAEL N. PINE
LYNN M. PALTROW
132 West 43rd Street
New York, New York

For the Amicus Curiae American Academy of Medical Ethics:

KEVIN J. TODD
CLARKE D. FORSYTHE
343 S. Dearborn Street
Chicago, Illinois

RICHARD J. RYAN, JR.
Memphis, Tennessee

COURT OF APPEALS AFFIRMED

Martha Craig Daughtrey, Justice

Opinion

This appeal presents a question of first impression, involving the disposition of the cryogenically-preserved product of *in vitro* fertilization (IVF), commonly referred to in the popular press and the legal journals as "frozen embryos." The case began as a divorce action, filed by the appellee, Junior Lewis Davis, against his then wife, appellant Mary Sue Davis. The parties were able to agree upon all terms of dissolution, except one: who was to have "custody" of the seven "frozen embryos" stored in a Knoxville fertility clinic that had attempted to assist the Davises in achieving a much-wanted pregnancy during a happier period in their relationship.

I. Introduction

Mary Sue Davis originally asked for control of the "frozen embryos" with the intent to have them transferred to her own uterus, in a post-divorce effort to become pregnant. Junior Davis objected, saying that he preferred to leave the embryos in their frozen state until he decided whether or not he wanted to become a parent outside the bounds of marriage.

Based on its determination that the embryos were "human beings" from the moment of fertilization, the trial court awarded "custody" to Mary Sue Davis and directed that she "be permitted the opportunity to bring these children to term through implantation." The Court of Appeals reversed, finding that Junior Davis has a "constitutionally protected right not to beget a child where no pregnancy has taken place" and holding that "there is no compelling state interest to justify ordering implantation against the will of either party." The Court of Appeals further held that "the parties share an interest in the seven fertilized ova" and remanded the case to the trial court for entry of an order vesting them with "joint control and equal voice over their disposition."

Mary Sue Davis then sought review in this Court, contesting the validity of the constitutional basis for the Court of Appeals decision. We granted review, not because we disagree with the basic legal analysis utilized by the intermediate court, but because of the obvious importance of the case in terms of the development of law regarding the new reproductive technologies, and because the decision of the Court of Appeals does not give adequate guidance to

the trial court in the event the parties cannot agree.

We note, in this latter regard, that their positions have already shifted: both have remarried and Mary Sue Davis (now Mary Sue Stowe) has moved out of state. She no longer wishes to utilize the "frozen embryos" herself, but wants authority to donate them to a childless couple. Junior Davis is adamantly opposed to such donation and would prefer to see the "frozen embryos" discarded. The result is, once again, an impasse, but the parties' current legal position does have an effect on the probable outcome of the case, as discussed below.

At the outset, it is important to note the absence of two critical factors that might otherwise influence or control the result of this litigation: When the Davises signed up for the IVF program at the Knoxville clinic, they did not execute a written agreement specifying what disposition should be made of any unused embryos that might result from the cryopreservation process. Moreover, there was at that time no Tennessee statute governing such disposition, nor has one been enacted in the meantime.[1]

In addition, because of the uniqueness of the question before us, we have no case law to guide us to a decision in this case. Despite the fact that over 5,000 IVF babies have been born in this country and the fact that some 20,000 or more "frozen embryos" remain in storage, there are apparently very few other litigated cases involving the disputed disposition of untransferred "frozen embryos," and none is on point with the facts in this case.[2]

---

1. At the time of trial, only one state had enacted pertinent legislation. A Louisiana statute entitled "Human embryos," among other things, forbids the intentional destruction of a cryopreserved IVF embryo and declares that disputes between parties should be resolved in the "best interest" of the embryo. 1986 La. Acts R.S. 9:12l *et seq.* Under the Louisiana statute, unwanted embryos must be made available for "adoptive implantation."

2. The only reported decision is *York v. Jones*, 717 F.Supp. 421 (E.D. Va. 1989), discussed at length in Section IV, below. The unreported case of *Del Zio v. Columbia Presbyterian Medical Center* summarized in footnote 21, below. A third case, involving a California couple who underwent IVF in Australia and later died in an airplane crash, is noted in Smith, *Australia's Frozen "Orphan" Embryos*, 24 J. Fam. L. 27 (1985-86). Because the couple died intestate, their estates were distributed under California law without regard to the "frozen embryos" left in storage in Australia.

But, if we have no statutory authority or common law precedents to guide us, we do have the benefit of extensive comment and analysis in the legal journals. In those articles, medical-legal scholars and ethicists have proposed various models for the disposition of "frozen embryos" when unanticipated contingencies arise, such as divorce, death of one or both of the parties, financial reversals, or simple disenchantment with the IVF process. Those models range from a rule requiring, at one extreme, that all embryos be used by the gamete-providers or donated for uterine transfer, and, at the other extreme, that any unused embryos be automatically discarded.[3] Other formulations would vest control in the female gamete-provider — in every case, because of her greater physical and emotional contribution to the IVF process,[4] or perhaps only in the event that she wishes to use them herself.[5] There are also two "implied contract" models: one would infer from enrollment in an IVF program that the IVF clinic has authority to decide in the event of an impasse whether to donate, discard, or use the "frozen embryos" for research; the other would infer from the parties' participation in the creation of the embryos that they had made an irrevocable commitment to reproduction and would require transfer either to the female provider or to a donee. There are also the so-called "equity models": one would avoid the conflict altogether by dividing the "frozen embryos" equally between the parties, to do with as they wish;[6] the other would award veto power to the party wishing to avoid parenthood, whether it be the female or the male progenitor.[7]

---

3. Note, *The Legal Status of Frozen Embryos: Analysis and Proposed Guidelines for a Uniform Law*, 17 J. Segis. 97 (1990).

4. This is the so-called "sweat-equity" model. Robertson, *Resolving Disputes over Frozen Embryos,"* Hastings Center Report at p.7, Nov./Dec. 1989.

5. Andrews, *The Legal Status of the Embryo*, 32 Loyola L. Rev. 357 (1986).

6. Assuming that the parties do not change their current positions, in this case the result would be "the worst of both worlds": some of the frozen embryos would likely be destroyed, contrary to Mary Sue Davis's devout wish that they be implanted and given the opportunity to come to term; at the same time, the others would likely be implanted and might come to term, thus forcing Junior Davis into unwanted parenthood.

7. Poole, *Allocation of Decision-Making Rights to Frozen Embryos*, 4 Amer. J. of Fam. L. 67 (1990).

Each of these possible models has the virtue of ease of application. Adoption of any of them would establish a bright-line test that would dispose of disputes like the one we have before us in a clear and predictable manner. As appealing as that possibility might seem, we conclude that given the relevant principles of constitutional law, the existing public policy of Tennessee with regard to unborn life, the current state of scientific knowledge giving rise to the emerging reproductive technologies, and the ethical considerations that have developed in response to that scientific knowledge, there can be no easy answer to the question we now face. We conclude, instead, that we must weigh the interests of each party to the dispute, in terms of the facts and analysis set out below, in order to resolve that dispute in a fair and responsible manner.

II. The Facts

Mary Sue Davis and Junior Lewis Davis met while they were both in the Army and stationed in Germany in the spring of 1979. After a period of courtship, they came home to the United States and were married on April 26, 1980. When their leave was up, they then returned to their posts in Germany as a married couple.

Within six months of returning to Germany, Mary Sue became pregnant but unfortunately suffered an extremely painful tubal pregnancy, as a result of which she had surgery to remove her right fallopian tube. This tubal pregnancy was followed by four others during the course of the marriage. After her fifth tubal pregnancy, Mary Sue chose to have her left fallopian tube ligated, thus leaving her without functional fallopian tubes by which to conceive naturally. The Davises attempted to adopt a child but, at the last minute, the child's birth-mother changed her mind about putting the child up for adoption. Other paths to adoption turned out to be prohibitively expensive. *In vitro* fertilization became essentially the only option for the Davises to pursue in their attempt to become parents.

As explained at trial, IVF involves the aspiration of ova from the follicles of a woman's ovaries, fertilization of these ova in a petri dish using the sperm provided by a man, and the transfer of the product of this procedure into the uterus of the woman from whom

the ova were taken.[8] Implantation may then occur, resulting in a pregnancy and, it is hoped, the birth of a child.

Beginning in 1985, the Davises went through six attempts at IVF, at a total cost of $35,000, but the hoped-for pregnancy never occurred. Despite her fear of needles, at each IVF attempt Mary Sue underwent the month of subcutaneous injections necessary to shut down her pituitary gland and the eight days of intermuscular injections necessary to stimulate her ovaries to produce ova. She was anesthetized five times for the aspiration procedure to be performed. Forty-eight to 72 hours after each aspiration, she returned for transfer back to her uterus, only to receive a negative pregnancy test result each time.

The Davises then opted to postpone another round of IVF until after the clinic with which they were working was prepared to offer them cryogenic preservation, scheduled for November 1988. Using this process, if more ova are aspirated and fertilized than needed, the conceptive product may be cryogenically preserved (frozen in nitrogen and stored at sub-zero temperatures) for later transfer if the transfer performed immediately does not result in a pregnancy. The unavailability of this procedure had not been a hindrance to previous IVF attempts by the Davises because Mary Sue had produced at most only three or four ova, despite hormonal stimulation. However, on their last attempt, on December 8, 1988, the gynecologist who performed the procedure was able to retrieve nine ova for fertilization. The resulting one-celled entities, referred to before division as zygotes, were then allowed to develop in petri dishes in the laboratory until they reached the four- to eight-cell stage.

Needless to say, the Davises were pleased at the initial success of the procedure. At the time, they had no thoughts of divorce and the abundance of ova for fertilization offered them a better chance at parenthood, because Mary Sue Davis could attempt to achieve a pregnancy without additional rounds of hormonal stimulation and aspiration. They both testified that although the process

---

8. Alternatively, the fertilized ova may also be transferred to the uterus of a "surrogate mother," who carries through with the pregnancy for the gamete-providers, or they may be donated to a genetically unrelated couple.

of cryogenic preservation was described to them, no one explained the ways in which it would change the nature of IVF for them.[9] There is, for example, no indication that they ever considered the implications of storage beyond the few months it would take to transfer the remaining "frozen embryos," if necessary. There was no discussion, let alone an agreement, concerning disposition in the event of a contingency such as divorce.

After fertilization was completed, a transfer was performed as usual on December 10, 1988; the rest of the four to eight-cell entities were cryogenically preserved. Unfortunately, a pregnancy did not result from the December 1988 transfer, and before another transfer could be attempted, Junior Davis filed for divorce—in February 1989. He testified that he had known that their marriage "was not very stable" for a year or more, but had hoped that the birth of a child would improve their relationship. Mary Sue Davis testified that she had no idea that there was a problem with their marriage.[10] As noted earlier, the divorce proceedings were complicated only by the issue of the disposition of the "frozen embryos."

III. The Scientific Testimony

In the record, and especially in the trial court's opinion, there is a great deal of discussion about the proper descriptive terminology to be used in this case. Although this discussion appears at first glance to be a matter simply of semantics, semantical distinctions are significant in this context, because language defines legal status and

---

9. They also were not asked to sign any consent forms. Apparently the clinic was in the process of moving its location when the Davises underwent this last round and, because timing of each step of IVF is crucial, it was impossible to postpone the procedure until the appropriate forms were located.

10. Mary Sue Davis's testimony is contradictory as to whether she would have gone ahead with IVF if she had been worried about her marriage. At one point she said if she had known they were getting divorced, she would not have gone ahead with it, but at another point she indicated that she was so committed to the idea of being a mother that she could not say that she would not have gone ahead with cryopreservation.

can limit legal rights.[11] Obviously, an "adult" has a different legal status than does a "child." Likewise, "child" means something other than "fetus."[12] A "fetus" differs from an "embryo." There was much dispute at trial about whether the four- to eight-cell entities in this case should properly be referred to as "embryos" or as "preembryos," with resulting differences in legal analysis.

One expert, a French geneticist named Dr. Jerome Lejeune, insisted that there was no recognized scientific distinction between the two terms. He referred to the four-to eight-cell entities at issue here as "early human beings," as "tiny persons," and as his "kin." Although he is an internationally recognized geneticist, Dr. Lejeune's background fails to reflect any degree of expertise in obstetrics or gynecology (specifically in the field of infertility) or in medical ethics. His testimony revealed a profound confusion between science and religion. For example, he was deeply moved that "Madame [Mary Sue], the mother, wants to rescue babies from this concentration can," and he concluded that Junior Davis has a moral duty to try to bring these "tiny human beings" to term.[13]

Dr. Lejeune's opinion was disputed by Dr. Irving Ray King, the gynecologist who performed the IVF procedures in this case. Dr. King is a medical doctor who had practiced as a sub-speciality in the areas of infertility and reproductive endocrinology for 12 years. He established the Fertility Center of East Tennessee in Knoxville in 1984 and had worked extensively with IVF and cryopreservation. He testified that the currently accepted term for the zygote immediately after division is "preembryo" and that this term applies up until 14 days after fertilization. He testified that this 14-day period defines the accepted period for preembryo research. At about 14 days, he testified, the group of cells begins to differentiate in a process that

---

11. For a thorough consideration of the implications of status, see Clifford Grobstein, *Science and the Unborn,* pages 58-62, Basic Books, Inc., New York (1988).

12. As Justice Stevens noted in *Thornburgh v. American College of Obstetricians and Gynecologists,* 476 U.S. 747, 779 n. 8 (1986) (Stevens, J., concurring), "No member of this Court has ever suggested that a fetus of a 'person' within the meaning of the Fourteenth Amendment."

13. For further rather uncomplimentary characterization of Lejeune's testimony, see Annas, *A French Homunculus in a Tennessee Court,* 19 Hastings Center Report (Nov/Dec 1989).

permits the eventual development of the different body parts which will become an individual.

Dr. King's testimony was corroborated by the other experts who testified at trial, with the exception of Dr. Lejeune. It is further supported by the American Fertility Society, an organization of 10,000 physicians and scientists who specialize in problems of human infertility. The Society's June 1990 report on Ethical Considerations of the New Reproductive Technologies[14] indicates that from the point of fertilization, the resulting one-cell zygote contains "a new hereditary constitution (genome) contributed to by both parents through the union of sperm and egg." *Id.* at 31S. Continuing, the report notes:

> The stage subsequent to the zygote is cleavage, during which the single initial cell undergoes successive equal divisions with little or no intervening growth. As a result, the product cells (blastomeres) become successively smaller, while the size of the total aggregate of cells remains the same. After three such divisions, the aggregate contains eight cells in relatively loose association...[E]ach blastomere, if separated from the others, has the potential to develop into a complete adult...Stated another way, at the 8-cell stage, the developmental singleness of one person has not been established.
>
> Beyond the 8-cell stage, individual blastomeres begin to lose their zygote-like properties. Two divisions after the 8-cell stage, the 32 blastomeres are increasingly adherent, closely packed, and no longer of equal developmental potential. The impression now conveyed is of a multicellular entity, rather than of a loose packet of identical cells.
>
> As the number of cells continues to increase, some are formed into a surface layer, surrounding others within. The outer layers have changed in properties

14. Published in the official Journal of the American Fertility Society, Volume 53, number 6, June 1990.

> toward trophoblast ..., which is destined [to become part of the placenta]. The less-altered inner cells will be the source of the later embryo. The developing entity is now referred to as a blastocyst, characterized by a continuous peripheral layer of cells and a small cellular population within a central cavity ...It is at about this stage that the [normally] developing entity usually completes its transit through the oviduct to enter the uterus.
>
> Cell division continues and the blastocyst enlarges through increase of both cell number and [volume]. The populations of inner and outer cells become increasingly different, not only in position and shape but in synthetic activities as well. The change is primarily in the outer population, which is altering rapidly as the blastocyst interacts with and implants into the uterine wall...Thus, the first cellular differentiation of the new generation relates to physiologic interaction with the mother, rather than to the establishment of the embryo itself. *It is for this reason that it is appropriate to refer to the developing entity up to this point as a preembryo, rather than an embryo.*

Id. at 31S-32S (emphasis added). For a similar description of the biologic difference between a preembryo and an embryo, *see* Robertson, *In the Beginning: The Legal Status of Early Embryos*, 76 Va. L. Rev. 437 (1990), in which the author summarizes the findings of Clifford Grobstein in *The Early Development of Human Embryos*, 10 J. Med. & Phil. 213 (1984).

Admittedly, this distinction is not dispositive in the case before us.[15] It deserves emphasis only because inaccuracy can lead to misanalysis such as occurred at the trial level in this case. The trial

---

15. It would be relevant, however, to the question of whether embryonic research is permissible, under regulations that limit such research to "preembryonic" stages. Such research is carried out principally in order to perfect *in vitro* fertilization techniques and to increase the success rate of pregnancies achieved through IVF and, as of 1986, was regulated by statute in some 25 states. *See* L. B. Andrews, *The Legal Status of the Embryo*, 32 Loyola L. Rev. 357, 396-397 (1986).

court reasoned that if there is no distinction between embryos and preembryos, as Dr. Lejeune theorized, then Dr. Lejeune must also have been correct when he asserted that "human life begins at the moment of conception." From this proposition, the trial judge concluded that the eight-cell entities at issue were not preembryos but were "children in vitro." He then invoked the doctrine of *parens patriae* and held that it was "in the best interest of the children" to be born rather than destroyed. Finding that Mary Sue Davis was willing to provide such an opportunity, but that Junior Davis was not, the trial judge awarded her "custody" of the "children in vitro."

The Court of Appeals explicitly rejected the trial judge's reasoning, as well as the result. Indeed, the argument that "human life begins at the moment of conception" and that these four- to eight-cell entities therefore have a legal right to be born has apparently been abandoned by the appellant, despite her success with it in the trial court.[16] We have nevertheless been asked by the American Fertility Society, joined by 19 other national organizations allied in this case as amici curiae, to respond to this issue because of its far-reaching implications in other cases of his kind. We find the request meritorious.

IV. The "Person" vs. "Property" Dichotomy

One of the fundamental issues the inquiry whether the pre-embryos in this case should be considered "persons" or "property" in the contemplation of the law. The Court of Appeals held, correctly, that they cannot be considered "persons" under Tennessee law:

> The policy of the state on the subject matter before us may be gleaned from the state's treatment of fetuses in the womb...The state's Wrongful Death Statute, Tenn. Code Ann. § 20-511) 6 does not allow a wrongful death for a viable fetus that is not first born alive. Without live birth, the Supreme Court has said,

16. In her brief, the appellant now characterizes the preembryos as "potential life" rather than as "human beings."

> a fetus is not a "person" within the meaning of the statute. *See e.g., Harby v. McDaniel,* 559 S.W.2d 774 (Tenn. 384, 358 *Durrett v. Owens,* 212 Tenn. 614, 371 S.W.2d 433 (1963); *Shousha v. Matthews Drivurself Service,* 210 Tenn. 384, 358 S.W.2d 471 (1962); *Hogan v. McDaniel,* 204 Tenn. 235, 319 S.W.2d 221 (1958). Other enactments by the legislature demonstrate even more explicitly that viable fetuses in the womb are not entitled to the same protection as "persons". Tenn. Code Ann. § 39-15-201 incorporates the trimester approach to abortion outlined in *Roe v. Wade,* 410 U.S. 113 (1973). A woman and her doctor may decide on abortion within the first three months of pregnancy but after three months, and before viability, abortion may occur at a properly regulated facility. Moreover, after viability, abortion may be chosen to save the life of the mother. This statutory scheme indicates that as embryos develop, they are accorded more respect than mere human cells because of their burgeoning potential for life. But, even after viability, they are not given legal status equivalent to that of a person already born. This concept is echoed in Tennessee's murder and assault statutes, which provide that an attack or homicide of a viable fetus may be a crime but abortion is not. See Tenn. Code Ann. §§ 39-13-107 and 39-13-210.

Junior Lewis Davis v. Mary Sue Davis, Tennessee Court of Appeals at Knoxville, No. 190, slip op. at 5-6 (Sept. 13, 1990).

Nor do preembryos enjoy protection as "persons" under federal law. In *Roe v. Wade,* 410 U.S. 113 (1973), the United States Supreme Court explicitly refused to hold that the fetus possesses independent rights under law, based upon a thorough examination of the federal constitution,[17] relevant common law principles, and the lack of scientific consensus as to when life begins. The Supreme Court concluded that "the unborn have never been recognized in the

17. The Fourteenth Amendment, for example, limits the equal protection and due process of law to "persons *born* or naturalized in the United States."

law as persons in the whole sense." *Id.* at 162. As a matter of constitutional law, this conclusion has never been seriously challenged.[18] Hence, even as the Supreme Court in *Webster v. Reproductive Health Services,* 492 U.S. 490 (1989), permitted the states some additional leeway in regulating the right to abortion established in *Roe v. Wade,* the *Webster* decision did no more than recognize a compelling state interest in potential life at the point when viability is possible. Thus, as Justice O'Connor noted, "[v]iability remains the 'critical point.'" Id. at 529 (O'Connor, J., concurring). That stage of fetal developmental is far removed, both qualitatively and quantitatively, from that of the four- to eight-cell preembryos in this case.[19]

Left undisturbed, the trial court's ruling would have afforded preembryos the legal status of "persons" and vested them with legally cognizable interests separate from those of their progenitors. Such a decision would doubtless have had the effect of outlawing IVF programs in the state of Tennessee. But in setting aside the trial court's judgment, the Court of Appeals, at least by implication, may have swung too far in the opposite direction.

The intermediate court, without explicitly holding that the preembryos in this case were "property," nevertheless awarded "joint custody" of them to Mary Sue Davis and Junior Davis, citing T.C.A. §§ 68-30-101 and 39-15-208, and *York v. Jones,* 717 F.Supp. 421 (E.D. Va. 1989), for the proposition that "the parties share an interest in the seven fertilized ova." The intermediate court did not otherwise define this interest.

The provisions of T.C.A. §§ 68-30-101 *et seq.,* on which the intermediate appellate court relied, codify the Uniform Anatomical Gift Act. T.C.A. § 39-15-208 prohibits experimentation or research

---

18. As Justice Stevens noted in *Thornburgh v. American College of Obstetricians and Gynecologists,* 476 U.8. 747, 779 n. 8 (1986) (Stevens, J., concurring), "No member of this Court has ever suggested that a fetus of a 'person' within the meaning of the Fourteenth Amendment."

19. Left undisturbed in the mother's uterus, a viable fetus has an excellent chance of being brought to term and born live. In contrast, a preembryo in a petri dish, if later transferred, has only a 13-21 percent chance of achieving actual implantation. Of these pregnancies, between 56 percent and 75 percent result in live births. Jones and Rogers, *Clinical In Vitro Fertilization,* 51-62, cited in Poole, *Allocation of Decision-Making Rights to Frozen Embryos,* 4 J. Amer. Family L. 67 (1990).

using an aborted fetus in the absence of the woman's consent. These statutes address the question of who controls disposition of human organs and tissue with no further potential for autonomous human life; they are not precisely controlling on the question before us, because the "tissue" involved here *does* have the potential for developing into independent human life, even if it is not yet legally recognizable as human life itself.

The intermediate court's reliance on *York v. Jones,* is even more troublesome. That case involved a dispute between a married couple undergoing IVF procedures at the Jones Institute for Reproductive Medicine in Virginia. When the Yorks decided to move to California, they asked the Institute to transfer the one remaining "frozen embryo" that they had produced to a fertility clinic in San Diego for later implantation. The Institute refused and the Yorks sued. The federal district court assumed without deciding that the subject matter of the dispute was "property." The *York* court held that the "cryopreservation agreement" between the Yorks and the Institute created a bailment relationship, obligating the Institute to return the subject of the bailment to the Yorks once the purpose of the bailment had terminated. 717 F. Supp. at 424-425.

In this case, by citing to *York v. Jones* but failing to define precisely the "interest" that Mary Sue Davis and Junior Davis have in the preembryos, the Court of Appeals has left the implication that it is in the nature of a property interest. For purposes of clarity in future cases, we conclude that this point must be further addressed.

To our way of thinking, the most helpful discussion on this point is found not in the minuscule number of legal opinions that have involved "frozen embryos," but in the ethical standards set by The American Fertility Society, as follows:

> Three major ethical positions have been articulated in the debate over preembryo status. At one extreme is the view of the preembryo as a human subject after fertilization, which requires that it be accorded the rights of a person. This position entails an obligation to provide an opportunity for implantation to occur and tends to ban any action before transfer that might harm the preembryo or that is not immediately therapeutic, such as

freezing and some preembryo research.

> At the opposite extreme is the view that the preembryo has a status no different from any other human tissue. With the consent of those who have decision-making authority over the preembryo, no limits should be imposed on actions taken with preembryos.
>
> A third view — one that is most widely held — takes an intermediate position between the other two. It holds that the preembryo deserves respect greater than that accorded to human tissue but not the respect accorded to actual persons. The preembryo is due greater respect than other human tissue because of its potential to become a person and because of its symbolic meaning for many people. Yet, it should not be treated as a person, because it has not yet developed the features of personhood, is not yet established as developmentally individual, and may never realize its biologic potential.

Report of the Ethics Committee of The American Fertility Society, *supra*, at 34S-35S.

Although the report alludes to the role of "special respect" in the context of research on preembryos not intended for transfer, it is clear that the Ethics Committee's principal concern was with the treatment accorded the transferred embryo. Thus, the Ethics Committee concludes that "special respect is necessary to protect the welfare of potential offspring...[and] creates obligations not to hurt or injure the offspring who might be born after transfer [by research or intervention with a preembryo]." *Id.* at 35S.

In its report, the Ethics Committee then calls upon those in charge of IVF programs to establish policies in keeping with the "special respect" due preembryos and suggests:

> Within the limits set by institutional policies, decision-making authority regarding preembryos should reside with the persons who have provided the gametes...As a matter of law, it is reasonable to assume that the gamete providers have primary decision-making

> authority regarding preembryos in the absence of specific legislation on the subject. A person's liberty to procreate or to avoid procreation is directly involved in most decisions involving preembryos.

Id. at 36S.

We conclude that preembryos are not, strictly speaking, either "persons" or "property," but occupy an interim category that entitles them to special respect because of their potential for human life. It follows that any interest that Mary Sue Davis and Junior Davis have in the preembryos in this case is not a true property interest. However, they do have an interest in the nature of ownership, to the extent that they have decision-making authority concerning disposition of the preembryos, within the scope of policy set by law.

V. The Enforceability of Contract

Establishing the locus of the decision-making authority in this context is crucial to deciding whether the parties could have made a valid contingency agreement prior to undergoing the IVF procedures and whether such an agreement would now be enforceable on the question of disposition. Under the trial court's analysis, obviously, an agreement of this kind would be unenforceable in the event of a later disagreement, because the trial court would have to make an ad hoc "best interest of the child" determination in every case. In its opinion, the Court of Appeals did not address the question of the enforceability of prior agreements, undoubtedly because that issue was not directly raised on appeal. Despite our reluctance to treat a question not strictly necessary to the result in the case, we conclude that discussion is warranted in order to provide the necessary guidance to all those involved with IVF procedures in Tennessee in the future — the health care professionals who administer IVF programs and the scientists who engage in infertility research, as well as prospective parents seeking to achieve pregnancy by means of IVF, their physicians, and their counselors.

We believe, as a starting point, that an agreement regarding disposition of any untransferred preembryos in the event of contingencies (such as the death of one or more of the parties, divorce, financial reversals, or abandonment of the program) should be

presumed valid and should be enforced as between the progenitors. This conclusion is in keeping with the proposition that the progenitors, having provided the gametic material giving rise to the preembryos, retain decision-making authority as to their disposition.[20]

At the same time, we recognize that life is not static, and that human emotions run particularly high when a married couple is attempting to overcome infertility problems. It follows that the parties' initial "informed consent" to IVF procedures will often not be truly informed because of the near impossibility of anticipating, emotionally and psychologically, all the turns that events may take as the IVF process unfolds. Providing that the initial agreements may later be modified *by agreement* will, we think, protect the parties against some of the risks they face in this regard. But, in the absence of such agreed modification, we conclude that their prior agreements should be considered binding.

It might be argued in this case that the parties had an implied contract to reproduce using *in vitro* fertilization, that Mary Sue Davis relied on that agreement in undergoing IVF procedures, and that the court should enforce an implied contract against Junior Davis, allowing Mary Sue to dispose of the preembryos in a manner calculated to result in reproduction. The problem with such an analysis is that there is no indication in the record that disposition in the event of contingencies other than Mary Sue Davis's pregnancy was ever considered by the parties, or that Junior Davis intended to pursue reproduction outside the confines of a continuing marital relationship with Mary Sue. We therefore decline to decide this case on the basis of implied contract or the reliance doctrine.[21]

---

20. This situation is thus distinguishable from that in which a couple makes an agreement concerning abortion in the event of a future pregnancy. Such agreements are unenforceable because of the woman's right to privacy and autonomy. *See Planned Parenthood v. Danforth*, 428 U.S. 52 (1976) (invalidating written consent of spouse as a pre-requisite to abortion).

21. We also point out that if the role were reversed in this case, it is highly unlikely that Junior Davis could force transfer of the preembryos to Mary Sue over her objection. Because she has an absolute right to seek termination of any resulting pregnancy, at least within the first trimester, ordering her to undergo a uterine transfer would be a futility. Ordering donation over objection would raise the other constitutional problems discussed in Section VI.

We are therefore left with this situation: there was initially no agreement between the parties concerning disposition of the preembryos under the circumstances of this case; there has been no agreement since; and there is no formula in the Court of Appeals opinion for determining the outcome if the parties cannot reach an agreement in the future.

In granting joint custody to the parties, the Court of Appeals must have anticipated that, in the absence of agreement, the preembryos would continue to be stored, as they now are, in the Knoxville fertility clinic. One problem with maintaining the status quo is that the viability of the preembryos cannot be guaranteed indefinitely. Experts in cryopreservation who testified in this case estimated the maximum length of preembryonic viability at two years.[22] Thus, the true effect of the intermediate court's opinion is to confer on Junior Davis the inherent power to veto any transfer of the preembryos in this case and thus to insure their eventual discard or self-destruction.

As noted in Section I of this opinion, the recognition of such a veto power, as long as it applies equally to both parties, is theoretically one of the routes available to resolution of the dispute in this case. Moreover, because of the current state of law regarding the right of procreation, such a rule would probably be upheld as constitutional. Nevertheless, for the reasons set out in Section VI of this opinion, we conclude that it is not the best route to take, under all the circumstances.

VI. The Right of Procreational Autonomy

Although an understanding of the legal status of preembryos is necessary in order to determine the enforceability of agreements about their disposition, asking whether or not they constitute "property" is not an altogether helpful question. As the appellee points out in his brief, "[as] two or eight cell tiny lumps of complex

22. This two-year limit is apparently an estimate based on technological feasibility as of the time of trial. Our survey of law journal articles indicates other estimates of viability ranging from two to ten years.

protein, the embryos have no [intrinsic] value to either party." Their value lies in the "potential to become, after implantation, growth and birth, *children*." Thus, the essential dispute here is not where or how or how long to store the preembryos, but whether the parties will become parents. The Court of Appeals held in effect that they will become parents if they both agree to become parents. The Court did not say what will happen if they fail to agree. We conclude that the answer to this dilemma turns on the parties' exercise of their constitutional right to privacy.

The right to privacy is not specifically mentioned in either the federal or the Tennessee state constitution, and yet there can be little doubt about its grounding in the concept of liberty reflected in those two documents. In particular, the Fourteenth Amendment to the United States Constitution provides that "[n]o state shall...deprive any person of life, liberty, or property, without due process of law." Referring to the Fourteenth Amendment, the United States Supreme Court in *Meyer v. Nebraska* observed:

> While this court has not attempted to define with exactness the liberty thus guaranteed, the term has received much consideration and some of the included things have been definitely stated. Without doubt, it denotes not merely freedom from bodily restraint but also the right of the individual to contract, to engage in any of the common occupations of life, to acquire useful knowledge, to marry, establish a home and bring up children, to worship God according to the dictates of his own conscience, and generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men.

262 U.S. 390, 399 (1923).

The right of privacy inherent in the constitutional concept of liberty has been further identified "as against the [power of] government, the right to be let alone — the most comprehensive of rights and the right most valued by civilized men." *Olmstead v. United States,* 277 U.S. 438, 478 (1928) (Brandeis, J., dissenting). As to scope, "the concept of liberty protects those personal rights that are fundamental, and it is not confined to the specific terms of the Bill of

Rights." *Griswold v. Connecticut,* 381 U.S. 479, 486 (1965) (Goldberg, J., concurring).

Moreover, the protection of fundamental rights is not confined to federal constitutional law. As the Minnesota Supreme Court noted in *Thiede v. Town of Scandia Valley,* 217 Minn. 218, 14 N.W.2d 400, 405 (1944) (citations omitted):

> The entire social and political structure of America rests upon the cornerstone that all men have certain rights which are inherent and inalienable. Among these are the right to be protected in life, liberty, and the pursuit of happiness; the right to acquire, possess, and enjoy property; and the right to establish a home and family relations — all under equal and impartial laws which govern the whole community and each member thereof. The rights, privileges, and immunities of citizens exist notwithstanding there is no specific enumeration thereof in State Constitutions. 'These instruments measure the powers of rulers, but they do not measure the rights of the governed.' 'The fundamental maxims of a free government seem to require, that the rights of personal liberty and private property should be held sacred.' Government would not be free if they were not so held.

Hence, it is not surprising that in the Tennessee Constitution, the concept of liberty plays a central role. Article I, Section 8 provides:

> That no man shall be taken or imprisoned, or disseized of his freehold, liberties or privileges, or outlawed, or exiled, or in any manner destroyed or deprived of his life, liberty or property, but by the judgment of his peers or the law of the land.

Indeed, the notion of individual liberty is so deeply embedded in the Tennessee Constitution that it, alone among American constitutions, gives the people, in the face of governmental oppression and interference with liberty, the right to resist that oppression even to the extent of overthrowing the government. The relevant provisions establishing this distinctive political autonomy appear in the first two

sections of Article I of the Tennessee Constitution, its Declaration of Rights:

> **Section 1. All power inherent in the people — Government under their control.**
> That all power is inherent in the people, and all free governments are founded on their authority, and instituted for their peace, safety, and happiness; for the advancement of those ends they have at all times, an inalienable and indefeasible right to alter, reform, or abolish the government in such manner as they may think proper.
>
> **Section 2. Doctrine of nonresistance condemned.**
> That government being instituted for the common benefit, the doctrine of non-resistance against arbitrary power and oppression is absurd, slavish, and destructive of the good and happiness of mankind.

The right to privacy, or personal autonomy ("the right to be let alone"), while not mentioned explicitly in our state constitution, is nevertheless reflected in several sections of the Tennessee Declaration of Rights, including provisions in Section 3 guaranteeing freedom of worship ("no human authority can, in any case whatever, control or interfere with the rights of conscience"); those in Section 7 prohibiting unreasonable searches and seizures ("the people shall be secure in their persons, houses, papers and possessions, from unreasonable searches and seizures"); those in Section 19 guaranteeing freedom of speech and press ("free communication of thoughts and opinions, is one of the invaluable rights of man, and every citizen may freely speak, write, and print on any subject, being responsible for the abuse of that liberty"); and the provisions in Section 27 regulating the quartering of soldiers ("no soldier shall, in time of peace, be quartered in any house without the consent of the owner").

Obviously, the drafters of the Tennessee Constitution of 1796 could not have anticipated the need to construe the liberty clauses of that document in terms of the choices flowing from *in vitro* fertilization procedures. But there can be little doubt that they foresaw the need to protect individuals from unwarranted governmental

intrusion into matters such as the one now before us, involving intimate questions of personal and family concern. Based on both the language and the development of our state constitution, we have no hesitation in drawing the conclusion that there is a right of individual privacy guaranteed under and protected by the liberty clauses of the Tennessee Declaration of Rights.

Undoubtedly, that right to privacy incorporates some of the attributes of the federal constitutional right to privacy and, in any given fact situation, may also share some of its contours. As with other state constitutional rights having counterparts in the federal bill of rights, however, there is no reason to assume that there is a complete congruency. *Compare and contrast, e.g., State v. Jacumin,* 778 S.W.2d 430 (Tenn. 1989), with *Gates v. Illinois,* 462 U.S. 213 (1983).

Here, the specific individual freedom in dispute is the right to procreate. In terms of the Tennessee state constitution, we hold that the right of procreation is a vital part of an individual's right to privacy. Federal law is to the same effect.

In construing the reach of the federal constitution, the United States Supreme Court has addressed the affirmative right to procreate in only two cases. In *Buck v. Bell,* 274 U.S. 200, 207 (1927), the Court upheld the sterilization of a "feebleminded white woman." However, in *Skinner v. Oklahoma,* 316 U.S. 535 (1942), the Supreme Court struck down a statute that authorized the sterilization of certain categories of criminals. The Court described the right to procreate as "one of the basic civil rights of man [sic]," 316 U.S. at 541, and stated that "[m]arriage and procreation are fundamental to the very existence and survival of the race." *Id.*

In the same vein, the United States Supreme Court has said:

> If the right of privacy means anything, it is the right of the *individual,* married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child.

Eisenstadt v. Baird, 405 U.S. 438, 453 (1972) (emphasis in original). *See also Carey v. Population Services International,* 431 U.S. 678, 685 (1977) (decision whether or not to beget or bear a child fundamental to individual autonomy).

That a right to procreational autonomy is inherent in our most basic concepts of liberty is also indicated by the reproductive freedom cases, *see, e.g., Griswold v. Connecticut,* 381 U.S. 479 (1965); and *Roe v. Wade,* 410 U.S. 113 (1973), and by cases concerning parental rights and responsibilities with respect to children. *See. e.g. Wisconsin v. Yoder,* 406 U.S. 205 (1972); *Prince v. Massachusetts,* 321 U.S. 158 (1944); *Cleveland Board of Education v. LaFleur,* 414 U.S. 632 (1974); *Pierce v. Society of the Sisters of the Holy Names of Jesus and Mary,* 268 U.S. 510 (1925); and *Bellotti v. Baird,* 443 U. S. 622 (1979). In fact in *Bellotti v. Baird* the Supreme Court noted that parental autonomy is basic to the structure of our society because the family is "the institution by which we inculcate and pass down many of our most cherished values, morals and cultural." *Bellotti,* 443 U. S. at 638, 640.

The United States Supreme Court has never addressed the issue of procreation in the context of *in vitro* fertilization. Moreover, the extent to which procreational autonomy is protected by the United States Constitution is no longer entirely clear. Justice Blackmun noted, in his dissent, that the plurality opinion in *Webster v. Reproductive Health Services,* 492 U.S. 490 (1989), "turns a stone face to anyone in search of what the plurality conceives as the scope of a woman's right under the Due Process Clause to terminate a pregnancy free from the coercive and brooding influence of the State." *Id.* at 538. The *Webster* opinion lends even less guidance to those seeking the bounds of constitutional protection of other aspects of procreational autonomy.[23]

For the purposes of this litigation it is sufficient to note that, whatever its ultimate constitutional boundaries, the right of procreational autonomy is composed of two rights of equal significance — the right to procreate and the right to avoid procreation. Undoubtedly, both are subject to protections and limitations. *See e.g.,*

---

23. Justice O'Connor did note in her concurring opinion in *Webster* that the plurality's position might threaten the development of IVF programs. Despite her concern, she voted to uphold the Missouri statute at issue, because she found the possibility "too hypothetical to support the use of declaratory judgment procedures and injunctive remedies" since there was no indications that Missouri might seek to prohibit IVF programs. *Webster,* 492 U.S. at 523 (O'Connor J., concurring).

Prince v. Massachusetts, 321 U.S. 158 (1944) (parental control over the education or health care of their children subject to some limits); *Roe v. Wade,* 410 U. S. 113 (1973) (states' interests in potential life overcomes right to avoid procreation by abortion in later states of pregnancy).

The equivalence of and inherent tension between these two interests are nowhere more evident than in the context of *in vitro* fertilization. None of the concerns about a woman's bodily integrity that have previously precluded men from controlling abortion decisions is applicable here.[24] We are not unmindful of the fact that the trauma (including both emotional stress and physical discomfort) to which women are subjected in the IVF process is more severe than is the impact of the procedure on men. In this sense, it is fair to say that women contribute more to the IVF process than men. Their experience, however, must be viewed in light of the joys of parenthood that is desired or the relative anguish of a lifetime of unwanted parenthood. As they stand on the brink of potential parenthood, Mary Sue Davis and Junior Lewis Davis must be seen as entirely equivalent gamete-providers.

It is further evident that, however far the protection of procreational autonomy extends, the existence of the right itself dictates that decisional authority rests in the gamete-providers alone, at least to the extent that their decisions have an impact upon their individual reproductive status. As discussed in Section V above, no other person or entity has an interest sufficient to permit interference with the gamete-providers' decision to continue or terminate the IVF process, because no one else bears the consequences of these decisions in the way that the gamete-providers do.[25]

---

24. *Planned Parenthood v. Danforth,* 428 U.S. 52, 71 (1976) ("Inasmuch as it is the woman who physically bears the child and who is the more directly and immediately affected by the pregnancy, as between the two, the balance weighs in her favor."). *See* discussion in *Developments in the Law — Medical Technology and the Law,* 103 Harv. L. Rev. 1519, 1544-45 (1990).

25. *See Del Zio v. Columbia Presbyterian Medical Center,* No. 74-3558 (S.D.N.Y. filed April 12, 1978), in which a woman who was an IVF patient was awarded $50,000 for emotional distress when a doctor deliberately destroyed the contents of the petri dish in which *in vitro* fertilization was being attempted with the woman's egg and her husband's sperm.

Further, at least with respect to Tennessee's public policy and its constitutional right of privacy, the state's interest in potential human life is insufficient to justify an infringement on the gamete-providers' procreational autonomy. The United States Supreme Court has indicated in *Webster,* and even in *Roe,* that the state's interest in potential human life may justify statutes or regulations that have an impact upon a person's exercise of procreational autonomy. This potential for sufficiently weighty state's interests is not, however, at issue here, because Tennessee's statutes contain no statement of public policy which reveals an interest that could justify infringing on gamete-providers' decisional authority over the preembryos to which they have contributed. As discussed in the Court of Appeals opinion, set out in Section IV, above, those statutes reveal instead a policy decision to recognize that persons born alive or capable of sustaining life *ex utero* have a higher status than do fetuses *in utero.*[26]

Certainly, if the state's interests do not become sufficiently compelling in the abortion context until the end of the first trimester,[27] after very significant developmental stages have passed, then surely there is no state interest in these preembryos which could suffice to overcome the interests of the gamete-providers. The abortion statute reveals that the increase in the state's interest is

---

26. T.C.A. § 20-5-106(b) (1980) allows a civil action for wrongful death only where the decedent has either been born alive or was viable and could reasonably have been expected to be capable of living outside the uterus. Likewise, a criminal conviction for an offense against a person, including a homicide conviction, may not be had if the victim was not viable at the time of the offense. T.C.A. § 39-13-107 and 39-13-214 (1991); *see also State v. Evans,* 745 S.W.2d 880 (Tenn. Crim. App. 1987) (viable fetus not "person" or "human life" within meaning of vehicular homicide statute).

Tennessee's abortion statute reveals a public policy decision weighing the interests of living person- against the state's interest in potential life. T.C.A. § 39-15-201 (1991). At least during certain stages of a pregnancy, the personal interests of the pregnant woman outweigh the state's interests and the pregnancy may be terminated.

Taken collectively, our statues reflect the policy decision that, at least in some circumstances, the interest of living individuals in avoiding procreation is sufficient to justify taking steps to terminate the procreational process, despite the state's interest in potential life.

27. The trimester scheme is set forth at T.C.A. § 39-15-201(c)(1)-(3).

marked by each successive developmental stage such that, toward the end of a pregnancy, this interest is so compelling that abortion is almost strictly forbidden. This scheme supports the conclusion that the state's interest in the potential life embodied by these four- to eight-cell preembryos (which may or may not be able to achieve implantation in a uterine wall and which, if implanted, may or may not begin to develop into fetuses, subject to possible miscarriage) is at best slight. When weighed against the interests of the individuals and the burdens inherent in parenthood, the state's interest in the potential life of these preembryos is not sufficient to justify any infringement upon the freedom of these individuals to make their own decisions as to whether to allow a process to continue that may result in such a dramatic change in their lives as becoming parents.

The unique nature of this case requires us to note that the interests of these parties in parenthood are different in scope than the parental interest considered in other cases. Previously, courts have dealt with the childbearing and child-rearing aspects of parenthood. Abortion cases have dealt with gestational parenthood. In this case, the Court must deal with the question of genetic parenthood. We conclude, moreover, that an interest in avoiding genetic parenthood can be significant enough to trigger the protections afforded to all other aspects of parenthood. The technological fact that someone unknown to these parties could gestate these preembryos does not alter the fact that these parties, the gamete-providers, would become parents in that event, at least in the genetic sense. The profound impact this would have on them[28] supports their right to sole decisional authority as to whether the process of attempting to

---

28. Sperm donors may regret not having contact with their biological children, according to psychotherapist Annette Baron and psychologist Aphrodite Clamar, mentioned in Lori Andrews, *Feminist Perspectives on Reproductive Technologist,* American Bar Foundation Working Paper # 8701 (1987) footnote 29, also published as Andrews, *Alternative Modes of Reproduction,* in *Reproductive Laws for the 1990's, A Briefing Handbook,* edited by Nadine Taub and Sherrill Cohen, Women's Rights Litigation Clinic, School of Law, Newark (1988). Even more so, women who have surrendered children for adoption may be haunted by concern about the child. Poole, *Allocating of Decision-Making rights to Frozen Embryos,* 4 Amer. J. Family Law 67; 74 (Spring 1990), citing Beeker, *The Rights of Unwed Parents,* 63 Social Services Rev. 496, 508 (1989).

gestate these preembryos should continue. This brings us directly to the question of how to resolve the dispute that arises when one party wishes to continue the IVF process and the other does not.

VII. Balancing the Parties' Interests

Resolving disputes over conflicting interests of constitutional import is a task familiar to the courts. One way of resolving these disputes is to consider the positions of the parties, the significance of their interests, and the relative burdens that will be imposed by differing resolutions.[29] In this case, the issue centers on the two aspects of procreational autonomy — the right to procreate and the right to avoid procreation. We start by considering the burdens imposed on the parties by solutions that would have the effect of disallowing the exercise of individual procreational autonomy with respect to these particular preembryos.

Beginning with the burden imposed on Junior Davis, we note that the consequences are obvious. Any disposition which results in the gestation of the preembryos would impose unwanted parenthood on him, with all of its possible financial and psychological consequences. The impact that this unwanted parenthood would have on Junior Davis can only be understood by considering his particular circumstances, as revealed in the record.

Junior Davis testified that he was the fifth youngest of six

---

29. For instance, in *Frisby v. Schultz*, 487 U.S. 474 (1988), the United States Supreme Court addressed the conflicting interests of a city in protecting a doctor who performed abortions and those of the persons who picketed in front of his home. A municipal ordinance prohibited picketing before or about the residence or dwelling of any individual. The Supreme Court had to consider whether the ordinance was narrowly tailored to serve a significant government interest and whither it left open ample alternative channels of communication. *Id.* at 481. The Court noted that this ordinance banned only focused picketing before a residence, not all picketing in residential areas. Because it was narrowly tailored to meet a significant government interest of protecting residential privacy, leaving open other methods of protest and expression, the Court held that the statue did not violate the First Amendment. *Id.* at 488. Likewise, in this case, we must find some balance between the exercise of the two conflicting interests.

children. When he was five years old, his parents divorced, his mother had a nervous break-down, and he and three of his brothers went to live at a home for boys run by the Lutheran Church. Another brother was taken in by an aunt, and his sister stayed with their mother. From that day forward, he had monthly visits with his mother but saw his father only three more times before he died in 1976. Junior Davis testified that, as a boy, he had severe problems caused by separation from his parents. He said that it was especially hard to leave his mother after each monthly visit. He clearly feels that he has suffered because of his lack of opportunity to establish a relationship with his parents and particularly because of the absence of his father.

In light of his boyhood experiences, Junior Davis is vehemently opposed to fathering a child that would not live with both parents. Regardless of whether he or Mary Sue had custody, he feels that the child's bond with the non-custodial parent would not be satisfactory. He testified very clearly that his concern was for the psychological obstacles a child in such a situation would face, as well as the burdens it would impose on him. Likewise, he is opposed to donation because the recipient couple might divorce, leaving the child (which he definitely would consider his own) in a singleparent setting.

Balanced against Junior Davis's interest in avoiding parenthood is Mary Sue Davis's interest in donating the preembryos to another couple for implantation. Refusal to permit donation of the preembryos would impose on her the burden of knowing that the lengthy IVF procedures she underwent were futile, and that the preembryos to which she contributed genetic material would never become children. While this is not an insubstantial emotional burden, we can only conclude that Mary Sue Davis's interest in donation is not as significant as the interest Junior Davis has in avoiding parenthood. If she were allowed to donate these preembryos, he would face a lifetime of either wondering about his parental status or knowing about his parental status but having no control over it. He testified quite clearly that if these preembryos were brought to term he would fight for custody of his child or children. Donation, if a child came of it, would rob him twice — his procreational autonomy would be defeated and his relationship with his offspring would be prohibited.

The case would be closer if Mary Sue Davis were seeking to use the preembryos herself, but only if she could not achieve parenthood by any other reasonable means. We recognize the trauma that Mary Sue has already experienced and the additional discomfort to which she would be subjected if she opts to attempt IVF again. Still, she would have a reasonable opportunity, through IVF, to try once again to achieve parenthood in all its aspects — genetic, gestational, bearing, and rearing.

Further, we note that if Mary Sue Davis were unable to undergo another round of IVF, or opted not to try, she could still achieve the child-rearing aspects of parenthood through adoption. The fact that she and Junior Davis pursued adoption indicates that, at least at one time, she was willing to forego genetic parenthood and would have been satisfied by the child-rearing aspects of parenthood alone.

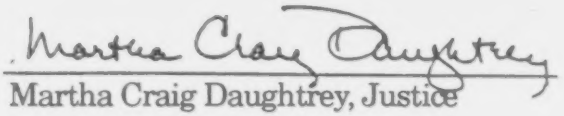
VIII. Conclusion

In summary, we hold that disputes involving the disposition of preembryos produced by *in vitro* fertilization should be resolved, first, by looking to the preferences of the progenitors. If their wishes cannot be ascertained, or if there is dispute, then their prior agreement concerning disposition should be carried out. If no prior agreement exists, then the relative interests of the parties in using or not using the preembryos must be weighed. Ordinarily, the party wishing to avoid procreation should prevail, assuming that the other party has a reasonable possibility of achieving parenthood by means other than use of the preembryos in question. If no other reasonable alternatives exist, then the argument in favor of using the preembryos to achieve pregnancy should be considered. However, if the party seeking control of the preembryos intends merely to donate them to another couple, the objecting party obviously has the greater interest and should prevail.

But the rule does not contemplate the creation of an automatic veto, and in affirming the judgment of the Court of Appeals, we would not wish to be interpreted as so holding.

For the reasons set out above, the judgment of the Court of

Appeals is affirmed, in the appellee's favor. This ruling means that the Knoxville Fertility Clinic is free to follow its normal procedure in dealing with unused preembryos, as long as that procedure is not in conflict with this opinion. Costs on appeal will be taxed to the appellant.



Martha Craig Daughtrey, Justice

CONCUR:

Reid, C.J. Drowota, O'Brien, Anderson, JJ.

In the Court of Appeals of Tennessee
Eastern Section

JUNIOR LEWIS DAVIS,
Plaintiff-Appellant,

vs.

MARY SUE DAVIS,
Defendant-Appellee.

Date of judgment is same as filing date of court's opinion (T.R.A.P. 38)

C/A No. 180,

Blount Law.

Honorable E. Dale Young, Judge.

Reversed and remanded.

JANET L. MAYFIELD, Knoxville and CHARLES M. CLIFFORD, Maryville, for plaintiff-appellant.

KURT ERLENBACH, Erlenbach & Erlenbach, P.A., Titusville, Fla., for defendant-appellee.

R. D. HASH, Maryville, *Amicus Curiae* and DAVID ZOLENSKY, American Civil Liberties Union Foundation of Tennessee, Nashville, *Amicus Curiae.*

Opinion

Franks, J.

In this divorce action, the sole issue on appeal is essentially who is entitled to control seven of Mary Sue's ova fertilized by Junior's sperm through the in vitro fertilization process. The fertilized ova are cryopreserved at the Fertility Center of East Tennessee in Knoxville.

The trial judge awarded "custody" of the fertilized ova to Mary Sue and directed that she "be permitted the opportunity to bring these children to term through implantation."

At the outset, it should be emphasized no pregnancy is involved. Both Mary Sue and Junior are now married to other

spouses; moreover, neither wants a child with the other as parent.[1]

There are significant scientific distinctions between fertilized ova that have not been implanted and an embryo[2] in the mother's womb. The fertilized ova at issue are between 4 and 8 cells. Genetically each cell is identical. Approximately three days after fertilization the cells begin to differentiate into an outer layer that will become the placenta and an inner layer that will become the embryo. This "blastocyst" can adhere to the uterine wall, the hallmark of pregnancy. Once adherence occurs, the inner embryonic layer reorganizes to form a rudimentary "axis" along which major organs and structures of the body will be differentiated. It is important to remember when these ova were fertilized through mechanical manipulation, their development was limited to the 8 cell stage. At this juncture there is no development of the nervous system, the circulatory system, or the pulmonary system and it is thus possible for embryonic development to be indefinitely arrested at this stage by cryopreservation or "freezing".[3]

Treating infertility by in vitro fertilization results in a low success rate. As one writer has observed:

> In IVF programs the embryo will be transferred to a uterus when it reaches the four-, six-, or eight-cell stage, some forty-eight to seventy-two hours after conception. It is also at this stage that the embryo would be cryopreserved for later use.... In vitro culture until the blastocyst stage may be possible, but beyond that it has not occurred. Finally, only one in

---

1. Mary Sue's appellate brief states:
Since the conclusion of this trial, appellee has moved to Florida where she has remarried, and she now goes by the name of Mary Stowe. She has directed the undersigned to inform this Court that her intention should the Court uphold the lower court's judgment is not to implant the embryos, and she wants authority to donate the embryos so that another childless couple may use them.

2. *Webster's Medical Desk Dictionary* defines the human embryo as: "The developing human individual *from the time of implantation* to the end of the eighth week after conception." [Emphasis supplied.]

3. At the time of trial, there was no data available as to the effects on the fertilized ovum when cryopreserved for more than two years.

ten preembryos at this stage goes on to initiate a successful pregnancy.[4]

Moreover, cryopreservation poses risks to the fertilized ova, which have only a 70 per cent rate of viability after having been frozen.

The parties, after concluding a normal pregnancy was unlikely, jointly decided to attempt to have a child by in vitro fertilization and, after several attempts, nine of Mary Sue's ova were successfully fertilized in December of 1988. For the first time, their doctors advised that freezing was an option and would enable them to avoid all but the implantation phase of in vitro fertilization if later attempts were undertaken. The couple agreed to attempt implantation of two of the fertilized ova and to preserve the others.[5] There was no discussion between them or their doctors about the consequences of preservation should the Davises divorce while the fertilized ova were stored. Mary Sue testified she had no idea that a divorce might be imminent and she would not have undergone the in vitro fertilization procedure had she contemplated divorce. Junior testified he believed the marriage was foundering but believed that having a child would improve the marriage and did not anticipate a divorce at the time of the in vitro fertilization procedure.[6]

On appeal, Junior asserts the trial court's judgment is not in accord with state and federal law and essentially argues the trial court's grant to Mary Sue of unilateral control over the implantation of the fertilized ova is tantamount to the court's deciding that Junior may be required to become a parent against his will, thus denying to him the right to control reproduction.

The United States Supreme Court in *Skinner v. Oklahoma*, 316 U.S. 535, 62 S.Ct. 1110, 86 L.Ed.1655 (1942), recognized the right to procreate is one of a citizen's "basic civil rights". Conversely, the court has clearly held that an individual has a right to prevent procreation. "The decision whether to bear or beget a child is a constitutionally protected choice. *Carey v. Population Serv. Int'l.*, 431 U.S.

---

4. Robertson, *In the Beginning: the Legal Status of Early Embryos*, 76 Va.L.Rev. 437 at 443 (1990).

5. The implantation proved unsuccessful.

6. The fertility center did not require the Davises to sign any agreement as to the terms of storage or disposition at the time the fertilized ova were cryopreserved.

678, 685, 97 S.Ct. 2010, 2016, 52 L.Ed.2d 675 (1977); *Eisenstadt v. Baird,* 405 U.S. 438, 453, 92 S.Ct. 1029, 1038, 31 L.Ed.2d 349 (1972); *see Griswold v. Connecticut,* 381 U.S. 479, 485, 85 S.Ct. 1678, 1682, 14 L.Ed.2d 510 (1965)." *Matter of Romero,* 790 P.2d 819, 822 (Colo. 1990).

Awarding the fertilized ova to Mary Sue for implantation against Junior's will, in our view, constitutes impermissible state action[7] in violation of Junior's constitutionally protected right not to beget a child where no pregnancy has taken place. We have carefully analyzed Tennessee's legislative Acts and case decisions and conclude there is no compelling state interest to justify our ordering implantation against the will of either party.

The policy of the state on the subject matter before us may be gleaned from the state's treatment of fetuses in the womb. The foundations of the Tennessee common law are based upon Blackstone's observation: "'Life' begins in contemplation of the law as soon as an infant is able to stir in the mother's womb." William Blackstone, *Commentaries on the Laws of England,* vol.1, p.125. The state's Wrongful Death Statute, Tenn. Code Ann. § 20-5-106 does not allow a wrongful death for a viable fetus that is not first born alive. Without live birth, the Supreme Court has said, a fetus is not a "person" within the meaning of the statute. *See e.g., Hamby v. McDaniel,* 559 S.W.2d 774 (Tenn. 1977); *Durrett v. Owens,* 212 Tenn. 614, 371 S.W.2d 433 (1963); *Shousha v. Matthews Drivurself Service,* 210 Tenn. 384, 358 S.W.2d 471 (1962); *Hogan v. McDaniel,* 204 Tenn. 235, 319 S.W.2d 221 (1958). Other enactments by the legislature demonstrate even more explicitly that viable fetuses in the womb are not entitled to the same protection as "persons". Tenn. Code Ann. § 39-15-201 incorporates the trimester approach to abortion outlined in *Roe v. Wade,* 410 U.S. 113 (1973). A woman and her doctor may decide on abortion within the

---

7. A haunting reminder of the evils of uncontrolled state action is found in Schuman's contemporary account of the state's control of reproduction in Nazi Germany:

> Under the Sterilization Law a series of "Hereditary Health Courts" were established throughout the Reich with appellate courts and a Supreme Hereditary Health Court with power to deliver final judgments. Before these bodies all persons suspected of hereditary disease are obliged to appear and show cause why they should not be rendered sterile through a surgical operation.

Schuman, *The Nazi Dictatorship,* p.382, Alfred A. Knopf (2nd ed. 1939).

first three months of pregnancy but after three months, and before viability, abortion may occur at a properly regulated facility. Moreover, after viability, abortion may be chosen to save the life of the mother. This statutory scheme indicates that as embryos develop, they are accorded more respect than mere human cells because of their burgeoning potential for life. But, even after viability, they are not given legal status equivalent to that of a person already born. This concept is echoed in Tennessee's murder and assault statutes, which provide that an attack or homicide of a viable fetus may be a crime but abortion is not. *See* Tenn. Code Ann. §§ 39-13-107 and 39-13-210.

The trial court in his fact finding and legal conclusions, ignored the public policy implicit in the Tennessee statutes, the case holdings of the Tennessee Supreme Court and the teachings of the United States Supreme Court. We are required to resolve the issue consistent with the existing Tennessee law and the parties' *constitutional* rights. On the facts of this case, it would be repugnant and offensive to constitutional principles to order Mary Sue to implant these fertilized ova against her will. It would be equally repugnant to order Junior to bear the psychological, if not the legal, consequences of paternity against his will.

Jointly, the parties share an interest in the seven fertilized ova. *See* Tenn. Code Ann. § 68-30-101 *et seg.*, § 39-15-208.[8] *Also see York v. Jones,* 717 F.Supp. 421 (E.D.Va. 1989).

Accordingly, the cause is remanded to the trial court to enter a judgment vesting Mary Sue and Junior with joint control of the fertilized ova and with equal voice over their disposition. Cost of the appeal is assessed one-half to each party.

Herschel P. Franks, J.

CONCUR:

Clifford E. Sanders, P.J. (E.S.)

Houston M. Goddard, J.

8. TCA §68-30-101, Uniform Anatomical Gift Act; TCA §39-15-208 (prohibits experimentation, research, or photography of aborted tissue without woman's consent).

IN THE CIRCUIT COURT FOR BLOUNT COUNTY, TENNESSEE, AT MARYVILLE, EQUITY DIVISION (DIVISION 1)

JUNIOR L. DAVIS,
Plantiff,

vs.

No. E-14496

MARY SUE DAVIS,
Defendant,

vs.

RAY KING, M.D., d/b/a
Fertility Center of East Tennessee,
Third Party Defendant.

OPINION OF THE COURT

IN THIS DOMESTIC RELATIONS case, the only issue before the Court is the disposition of seven cryogenically frozen embryos maintained by the Third Party Defendant and the product of in vitro fertilization undertaken by the Plaintiff and the Defendant.

THE CASE is one of first impression.

IN ITS OPINION below, the Court has made certain findings of fact and conclusions of law resulting in judgment.

THE SALIENT findings, conclusions and the judgment are summarized as follows, to-wit:

(1) Mr. and Mr. Davis undertook in vitro procedures for the purpose of producing a human being to be their child.

(2) The seven cryogenically preserved embryos are human embryos.

(3) American Fertility Society Guidelines are for intra-professional use, are not binding upon the Court, but are of probative value for consideration by the Court.

(4) The term "preembryo" is not an accepted term and serves as a false distinction between the developmental stages of a human

embryo.

(5) From fertilization, the cells of a human embryo are differentiated, unique and specialized to the highest degree of distinction.

(6) Human embryos are not property.

(7) Human life begins at conception.

(8) Mr. and Mrs. Davis have produced human beings, in vitro, to be known as their child or children.

(9) For domestic relations purposes, no public policy prevents the continuing development of the common law as it applies to the seven human beings existing as embryos, in vitro, in this domestic relations case.

(10) The common law doctrine of *parens patriae* controls children, in vitro.

(11) It is to the manifest best interests of the child or children, in vitro, that they be available for implantation.

(12) It serves the best interests of the child or children, in vitro, for their Mother, Mrs. Davis, to be permitted the opportunity to bring them to term through implantation.

JUDGMENT OF THE COURT: The temporary custody of the seven cryopreserved human embryos is vested in Mrs. Davis for the purpose of implantation. All issues of support, visitation, final custody and related issues are reserved to the Court for consideration and disposition at such time as one or more of the seven human embryos are the product of live birth.

APPENDICES TO OPINION OF THE COURT

BECAUSE of much public interest in the case, Appendix A will assist the parties and the public to understand some fundamental rules and principles required to be applied the Court in the process of deciding the case. Appendix B is the Court's summary of the testimony given in the case over a period of almost three days (August 7, 1989, August 8, 1989 and August 10, 1989). Appendix C is footnote references to the Court's Findings of Fact and Conclusions of Law section of the Opinion.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Davises - Their Marriage

Based on the record before it, the Court finds that Mr. Davis is a gentleman; he is 30 years of age, employed as an electrician and a refrigeration technician by the Maryville Housing Authority, Maryville, Tennessee, earning about $17,500.00 annually. Mrs. Davis is a lady; she is 28 years of age who, at the trial, was employed by the Sea Ray Boat Company, Vonore, Tennessee, as a sales representative earning about $18,000.00 annually. Subsequent to the trial, Mrs. Davis has become domiciled in the state of Florida.[1]

Infertility of Mrs. Davis

Mr. and Mrs. Davis have been married about nine years. They very much wanted to have a family, but after Mrs. Davis suffered five tubal pregnancies, her physician advised and she undertook surgical treatment which rendered her incapable of natural conception. The Court finds that Mrs. Davis suffered significant trauma and pain resulting from the parties' attempts to procure their family by way of natural childbirth. In vitro fertilization[2] is the only option now available to her to have her own child.

In Vitro and Adoption Attempts

Remaining committed to having a family, Mr. and Mrs. Davis sought the advice and counsel of Dr. Ray King in the Fall, 1985, became familiar with and participated in the in vitro fertilization program under Dr. King's direction and guidance. Dr. King was assisted by his colleague, Dr. Charles A. Shivers. who performed the necessary laboratory work in connection with the in vitro fertilization program. In addition, Dr. King was assisted by his patient coordinator. Deborah Cooper McCarter, a Registered Nurse and Dr. King's administrative assistant.

After some six attempts by the couple to produce a child through the in vitro fertilization process, resulting in no pregnancy, the parties temporarily suspended their participation in the program and sought to obtain a child through adoption. The adoption process did not work, and the parties abandoned adoption attempts and returned to the in vitro fertilization program conducted by Dr. King.

Cryopreservation Technique

In the Fall, 1988, Mrs. Davis learned of the new cryopreservation[3] program sponsored by King's clinic whereby several ova[4] could be aspirated[5], inseminated[6] in the laboratory and if the insemination process produced fertilized zygotes, the zygotes[7] could be allowed to mature in the laboratory to a medically accepted point for the purpose of either implantation[8] or cryopreservation for future implantation. Mrs. Davis discussed the new technique with her husband and armed with that information the parties proceeded to re-enter the program with the intent of producing a child or children which would constitute their family.

Further In Vitro Attempts

It is undisputed in the record and the Court finds that in order to prepare her reproductive system to produce quality ova for insemination, Mrs. Davis went through many painful, physically tiring, emotionally and mentally taxing procedures, both before the December, 1988 events and after those events. As a prospective Mother, she spent many hours of anxious moments waiting for word as to whether she would be a Mother. The cryopreservation technique offered Mrs. Davis much welcomed relief from the rigors of the full procedure each time in vitro fertilization was attempted.

It is further undisputed and the Court finds that Mr. Davis donated sperm for the December, 1988 insemination and resulting fertilization process, that he spent many anxious hours, early in the morning and late at night, waiting at the hospital while Mrs. Davis underwent the aspiration and implant procedures and that he spent many anxious hours, as a prospective Father, awaiting word as to whether he would be a Father.

On December 8, 1988, nine ova were aspirated from Mrs. Davis, nine ova were inseminated with Mr. Davis' sperm by Dr. Shivers in his laboratory and the nine ova were fertilized, producing acceptable zygotes for implantation consideration by Dr. King and Dr. Shivers. The zygotes were permitted to mature under laboratory conditions, variously developing from the four-cell cleavage[9] stage to the eight-cell cleavage stage, all of which were found to be of excellent quality by Dr. Shivers and Dr. King. On December 10, 1988, two of the embryos[10] were implanted in Mrs. Davis, neither of which resulted in

pregnancy, and the remaining seven embryos were placed in cryogenic storage for future implantation purposes.

Cryopreservation For Davis Family Only

The Court finds that before their embryos were committed to cryogenic storage, Mr. and Mrs. Davis knew, were aware of and had discussed between themselves (and with at least Dr. Shivers) the fact that reliable medical data indicated the practical storage life of the human embryos would probably not exceed two years. Mr. and Mrs. Davis had discussed the fact that if Mrs. Davis became pregnant as a result of her implant on December 10, 1988, the possibility existed that the remaining seven embryos in cryopreservation could be donated to another infertile couple, but the parties made no decision about that matter.

The Court further finds that during the time between December, 1988 and the filing of the original Complaint in this case (February 23, 1989), Mr. and Mrs. Davis discussed the possibility of and had tentatively planned to implant at least one of the cryopreserved embryos in Mrs. Davis' body in March or April, 1989.

The Intent of Mr. and Mrs. Davis

The Court further finds that Dr. King and Dr. Shivers engaged in a concerted effort with the Davises to help Mr. and Mrs. Davis become parents, both as to the IVF procedures before and after the utilization of the cryopreservation technique; and the Court finds and concludes that Mr. and Mrs. Davis participated in the IVF program, both before and after the employment of the cryopreservation technique, for one purpose: to produce a human being to be known as their child.

Issues for the Court

There is no fact in the record to persuade the Court that Mr. and Mrs. Davis discussed or had any thought of changing their intent until the Complaint was filed in this case on February 23, 1989 and it must be determined from the proof whether Mr. and Mrs. Davis accomplished their intent. That determination is to be made by the answer to the most poignant question of the case: When does human life begin?

To answer this question, several additional questions must first be asked and answered, based on the record in this case: Are the

embryos human? Does a difference exist between a preembryo[11] and an embryo? Are the embryos beings? Are the embryos property that may become human beings?

Human Embryos—The Experts

Of the eight witnesses who gave testimony in this case, five of the witnesses presented themselves possessing the requisite knowledge, special skill, experience and education necessary to establish themselves as experts[12] in their respective fields of professional endeavor.

Because of her special training as a Registered Nurse, Mrs. McCarter is an expert witness; Dr. King[13] is a Medical Doctor and is a well qualified specialist in the field of Infertility/ Reproductive Endocrinology: Dr. Shivers[14] is a well qualified Embryologist and is experienced in the laboratory work necessary for in vitro fertilization and cryogenic storage of human embryos: Professor Robertson[15] is an eminently qualified Professor of Law whose scholarly treatises, dealing primarily with non-coital reproduction, have served as the basis for consideration of many medical-legal subjects: and Dr. Jerome Lejeune[16] is an eminently qualified Medical Doctor, Doctor in Science, Professor of Fundamental Genetics and recognized throughout the world in his specialty, Human Genetics.

The expert witnesses (except Mrs. McCarter) offered opinions to assist the court in determining when human life begins. It should be noted that all four witnesses agree that the seven cryopreserved embryos are human: that is. "belonging or relating to man: characteristic of man..."[17]

The Court finds and concludes that the seven cryopreserved embryos are human.

Preembryo vs. Embryo: Human Beings

Three of the experts, however, respectfully disagree with Dr. Lejeune that the human embryos are in "being;" that is, in "existence; conscious existence as, things brought into being by generation..." or living, alive[18]. The three experts insist the entities are at a stage in development where they simply possess the potential for life.

In the analysis of the testimony offered on the point of whether or not the seven embryos are human beings, the Court believes it is helpful to even further condense the already summarized opinion

testimony (Appendix B)[19] of each expert on the subject:

1. **Dr. Irving Ray King:** There is a first a one-cell gamete[20], a zygote (after the first cell divides), a preembryo (up to 14 days after fertilization) and finally an embryo (after 14 days and upon cell differentiation).

2. **Dr. Charles Alex Shivers:** A preembryo is a zygote up to 11-14 days and consists largely of undifferentiated cells; that after attachment to the uterus wall and the appearance of the primitive streak, the cells then become different; that is organs, organ systems, body parts and the like are formed. At the time of fertilization, genetic controls are "locked in forever" and control who the preembryo will later be, but, "...as far as we know...to my knowledge...,there is no way to distinguish the cells [at the zygote stage]...[T]hey are the same [undifferentiated]..."

3. **Professor John A. Robertson:** A human preembryo is an entity composed of a group of undifferentiated cells which have no organs or nervous system. That at about 10-14 days, the preembryo attaches itself to the uteran wall, develops its primitive streak and life then commences. It is "...not clear..." that a human preembryo is a unique individual; that simply because fertilization has occurred, the gamete contributors have not procreated.[21]

4. **Dr. Jerome Lejeune:** Each human has a unique beginning which occurs at the moment of conception. Embryo: "...that youngest form of a being..." Preembryo: there is no such word. There is no need for a subclass of the embryo to be called a preembryo, because there is nothing before the embryo; before an embryo there is only a sperm and an egg when the egg is fertilized by the sperm the entity becomes a zygote: and when the zygote divides it is an embryo. When the first cell exists, all the "tricks of the trade" to build itself into an individual already exists. Shortly after fertilization at the three-cell stage, a "...tiny human being..." exists. When the ovum is fertilized by the sperm, the result is "...the most specialized cell under the sun..."; specialized from the point of view that no other cell will ever have the same instructions in the life of the individual being created. No scientist has ever offered the opinion that an

embryo is property. As soon as he has been conceived, a man is a man. New findings recited [Jeffrey's-DNA][22] [23] definitely prove differentiation and that from the very beginning there exists an embryo.

Dr. King, Dr. Shivers and Professor Robertson rely at least to some degree on the report of the Ethics Committee of The American Fertility Society[24] in forming the basis of their opinions. Each makes a distinction between "embryo" and "preembryo" in conformity to the AFS guidelines.

The ethical considerations by the committee for the AFS were referred to in, cited and relied upon by the Brief[25] filed by Mr. Davis; testimony was given about the Committee and its work. Professor Robertson is a member of the Ethics Committee, Dr. King is a member of the American Fertility Society and various witnesses gave testimony indicating reliance on the pronouncements of the Committee.

The AFS guidelines were published by the Society in September, 1986 after the Committee's last deliberation on April 14, 1986 in Norfolk, Virginia[26]. The guidelines were promulgated by the committee pursuant to the charge of the Society's President by letter dated November 7, 1984,[27] requesting the committee to address ethical issues regarding reproduction and to disseminate the committee's knowledge of these positions on those matters.

In its report, the committee defined the term "preembryo", and prefaced its definitions section with the following language:

> **"In order to avoid confusion,** the committee found it necessary to adopt certain definitions **for the purposes of this document."** [Emphasis supplied][28]

The Committee then defined the word preembryo this way:

> **"A preembryo** is a product of gametic union from fertilization to the appearance of the embryonic axis. The preembryonic stage is considered to last until 14 days after fertilization. This definition is not intended to imply a moral evaluation of the preembryo."[29]

In reviewing the guidelines, it is of interest to call attention to several considerations set-forth in the report. One of those considerations is the recognition by the committee that there are several respected views relative to the moral and legal status of a preembryo.

The committee adopted this view:

> "A third view—one that is most widely held—takes an intermediate position between the other two. It holds that the preembryo deserves respect greater than accorded to human tissue but not the respect accorded to actual persons. The preembryo is due greater respect than any other human tissue because of its potential to become a person and because of its symbolic meaning for many people. Yet, it should not be treated as a person, because it has not yet developed the features of personhood, is not yet established as developmentally individual, and may never realize its biologic potential.[30]

Under the heading "Emerging Consensus On Preembryo Status," the following statement is made:

> "The Ethics Advisory Board, for example, unanimously agreed in 1979 that "the human embryo [i.e., preembryo in this report] is entitled to profound respect, but this respect does not necessarily encompass the full legal and moral rights attributed to persons" (Ethics Advisory Board. 1979)." [Emphasis supplied.][31]

In the Committee's summary of points of special interest, the following is found:

> "The Committee finds that the human preembryo is not a person but is entitled to respect because it has the potential to become a person. This view limits the circumstances in which a preembryo may be discarded or used in research..."[32]

The Court finds and concludes that the report of the Ethics Committee of the American Fertility Society constitutes guidelines for those professionals involved in the field of fertility treatment; as Professor Robertson testified, they constitute guidelines for these professionals to be primarily utilized for litigation purposes. In other words, they are the self-imposed standards one professional would testify must be met by another professional, for example, in a medical malpractice suit. The guidelines do not have the force and effect of the law but must be considered by this Court for whatever probative[33] value they may possess.

The Court finds and concludes that the guidelines of the AFS do not serve as authority for this Court in making a determination of whether the seven human embryos in question are human beings,

and concludes the term "preembryo" has arisen in this suit primarily because the AFS Committee chose that term to avoid the confusion for the purposes of its own guidelines. The Court has made a thorough search of encyclopedias and dictionaries of which the Court may take judicial notice and the Court can nowhere find the word "preembryo" defined nor can the Court find even a reference to that term.

Careful scrutiny of the testimony and an exhibit at the trial gives the Court even greater assurance that the term "preembryo" serves as a false distinguishing term in this case.

Exhibit 8, at the trial, are the handwritten notes of Dr. King. Dr. King's notes concerning the status of his patient, Mary Davis, covering the period of time from December 8, 1988 at 10:08 a.m. through and including December 10, 1988 at 3:31 p.m., all refer to the ova after fertilization as "embryo"; and the last document in that series of notes makes reference to the "condition of embryo" and variously describes the seven embryos as "...cell embryo-perfect..."

The Court finds it curious that Dr. King, who adopts the AFS guideline definition of a "preembryo" to distinguish it from an "embryo" would in his own notes call them embryo(s).

Counsel for Mr. Davis furnished the Court a revised copy of Professor Robertson's paper[34] written recently by him (probably finished in July, 1989), dealing specifically with the case at bar. The solution Professor Robertson set-forth in his paper is the same solution he offered through his testimony. He was asked about that opinion on direct examination by Counsel for Mr. Davis; he was cross-examined by Counsel for Mrs. Davis about his opinion cited therein. The paper is entitled *Resolving Disputes Over Disposition of Frozen Embryos;* from the title page through 31 additional pages (the entire text), Professor Robertson, speaking about the case at bar, referred time and again to the "embryos."

It is curious that this very scholarly paper does not reflect the very fine distinction between "preembryo" and "embryo" made by Professor Robertson throughout his testimony at the trial.

The Court is persuaded that the debate between these most sincere and knowledgeable witnesses perhaps boils down to much the same debate Sweet Juliet had with herself when she rationalized her strong affection for Romeo, who was not a Montague:

"...Tis but thy name that is my enemy;
Thou art thyself, though not a Montague.
...What's in a name? that which we call a rose
By any other name would smell as sweet..."[35]

The Court finds and concludes there is no such term as "preembryo"; that to use the term in the context of this case creates a false distinction, one that does not exist. The Court finds and concludes the seven cryopreserved entities are human embryos.

DNA Manipulation Verifies Uniqueness

Based on the analysis of the testimony comprising the positions of Dr. King, Dr. Shivers and Professor Robertson, it appears that where these gentlemen most sharply differ with Dr. Lejeune is in the area of cell differentiation. Dr. Lejeune, of course, gives emphatic testimony that the cells are especially differentiated and that such position is a proven scientific fact.

The term "differentiate"[36] means to distinguish by a specific difference. If the cells, therefore, of a four cell zygote are undifferentiated, the cells lack any distinction; a skilled scientist could not distinguish the cells of one zygote from those of another zygote nor could the scientist distinguish between any of four cells within the hypothetical zygote. Dr. Lejeune bases his emphatic opinion to the contrary ("...the most specialized cell under the sun...") on a complicated scientific process of manipulating and reading the DNA molecule, characterized by him as new findings which definitely prove differentiation, now known through the science of molecular genetics[37] beyond any doubt.

The testimony given by Dr. Lejeune relative to conclusive proof induced through DNA examination is highly technical, incapable of observation by the Court and requires the Court to either accept or reject the scientist's conclusion that it can be done. While this factor requires the Court to proceed with special caution, it does not of itself render testimony or other evidence based on this highly specialized field of molecular genetics Unreliable.[38]

Quite to the contrary, DNA profiling, through "genetic fingerprint" evidence by which strands of coating found in genetic molecule of deoxyribonucleic acid (DNA), has been accepted as competent and admissible evidence in Courts of law, is considered reliable, is performed by a number of laboratories around the world

and is generally accepted in the scientific community.[39]

As indicated in footnote 39, the *Andrews* case was decided by the United States District Court of Appeals of Florida, Fifth District, on October 20, 1988 and review of the case was denied in 1989. It is the only case this Court has been able to find dealing with the reliability of the DNA procedures so forcefully relied on by Dr. Lejeune. *Andrews* approves the reliability of DNA profiling, a process very similar to the one described and relied on by Dr. Lejeune.

Both Dr. Shivers and Professor Robertson cite undifferentiated cells as one basis for their opinions that human embryos are not human beings, but each hedges on the point. Dr. Shivers says "as far as he knows" there is no way to distinguish the cells: that they are undifferentiated: and Professor Robertson says "it is not clear that a unique individual" then exists.

The testimony of Dr. Lejeune stands unrebutted in the record; the Court accepts his testimony that DNA manipulation of molecules of human chromosomes[40] reliably proves cell differentiation. The Court is persuaded that this relatively new technique opens a tiny window to the world to see and be aware of the most intimate and intricate details of man from his very beginning.

The Court finds and concludes that the cells of human embryos are comprised of differentiated cells, unique in character and specialized to the highest degree of distinction.

Dr. Shivers and Professor Robertson testified that the preembryo is not a being because he or she has no (observable) organs or nervous system, no body parts. Dr. Lejeune, on the other hand, says a man is a man; that upon fertilization, the entire constitution of the man is clearly, unequivocally spelled-out, including arms, legs, nervous systems and the like; that upon inspection via DNA manipulation, one can see the life codes for each of these otherwise unobservable elements of the unique individual.

The testimony of Dr. Lejeune stands unrebutted in the record; the Court accepts his testimony founded on the fact that DNA manipulation of the molecules of human chromosomes reliably detect these features of man; that the life codes for each special, unique individual are resident at conception and antimate the new person very soon after fertilization occurs.

The argument that the human embryo may never realize its

biologic potential, it appears to the Court, is statistically[41] and speculatively true, but is a hollow argument. A newborn baby may never realize its biologic potential, but no one disputes the fact that the newborn baby is a human being. And if it is a part of the logic that an embryo, only a few hours old and perhaps only four cells in development, is not a being because it cannot sustain itself, then we must also reason that a newborn baby (which no one disputes is a human being) can likewise not sustain itself without the aid and assistance of a mature individual (hopefully its Mother); and we must reason the newborn also lacks a necessary criteria to qualify as a human being. For surely it is good logic that a newborn human being, left naked in a field without the sustenance, aid and assistance of another human being will surely die; it is utterly helpless; it, too, lacks the capacity to sustain itself.

It must be noted that one solution offered for the Court's disposition of the embryos is to allow them to die a passive death. Mrs. Davis reasons that in order to die, one must first live. Her logic is appealing, persuasive and accepted by the Court.

The technical arguments of human genetics aside, Mr. Davis asserts the theory that embryos constitute property jointly owned by the parties:[42] that the embryos do not constitute life, but have the potential for life. Professor Robertson also adopts this view and suggests the embryos, at this stage of development, might properly be designated fungible property.[43]

In light of all the proof before the Court, it is impossible for the Court to find the assertion well founded in logic and good reason. Perhaps Tennessee's Senator Albert Gore best expressed the Court's apprehension when then Congressman Gore (in 1984), hearing a similar theory asserted during testimony before the U.S. House of Representatives' Subcommittee on Investigations and Oversight of the Committee on Science and Technology, said:

> "I disagree that there's just a sliding scale of continuum with property at one point along the spectrum and human beings at another. I think there's a sharp distinction between something that is property and something that is not property..."[44]

The Court finds and concludes that by whatever name one chooses to call the seven frozen entities—be it preembryo or embryo—those entities are human beings; they are not property.

Human Life Begins at Conception

The answer then, to the question: When does human life begin?... from the record in this case, the Court finds and concludes that human life begins at the moment of conception;[45] that Mr. and Mrs. Davis have accomplished their original intent to produce a human being to be known as their child.

What then is the legal status to be accorded a human being existing as an embryo, in vitro, in a divorce case in the state of Tennessee?

For the purposes of the **Tennessee Wrongful Death Statute,**[46] an unborn child is accorded status only if the child is viable at the time of injury; that is: if a child had achieved a stage of development where it could reasonably be expected to be capable of living outside the uterus. For the purposes of the **Tennessee Criminal Abortion Statute,**[47] the child is accorded no recognized status during the first three months of its Mother's pregnancy. But the legislature for the state of Tennessee has not yet, and to the best of the Court's knowledge, information and belief, no state in the union has, established a public policy[48] declaring the rights to be accorded a human embryo, in vitro, in a divorce case.

In order to give effect to this Court's judgment, it is necessary to establish, in the absence of any authority to give the Court guidance, the status of these unborn human beings in this divorce proceeding.

As my learned colleague in the law, Professor Robertson, pointed out during his testimony, the recent *Webster*[49] case leaves open the door for a state to establish its compelling interest in protecting even potential human life by legislation declaring its public policy. Even as to the abortion issue, the *Webster* Court opined that it saw no reason why the state's interest in protecting potential human life should come into existence only at the point of viability.[50]

The Court understands that both *Roe*[51] and *Webster* dealt with questions of the constitutionality of **abortion statutes** and the court's decisions in those cases have a profound effect on the states' compelling interest in the protection of human life, **but only as it deals with the abortion issue.**

In its research of Tennessee law, the Court finds only one case that gives it solace. In *Smith v. Gore,* 728 SW 2nd 738 (1987), a tort action was brought for a wrongful pregnancy resulting from a failed

tubal ligation. While the case deals in the main with the tort aspect of the claim, the Court, in its discussion of public policy recognizes that the state places great value on human life. But of greater importance, it appears to the Court, is the *Smith* Court's consideration of the distinction between judicial decisions which infringe on the legislative right to set public policy and a Court's finding that no public policy prevents the continuing development of common law.

The function of the Courts is to declare the law as the Courts find it, and it is for the Legislature to weigh the affect [sic] and the consequences of legislation enacted.[52] The Legislature has exclusive and ample power to determine the public policy of the state.[53] The law in Tennessee, therefore, restricts this Court's role in declaring public policy. The Court is not free to establish what it believes to be the best policy for the state; rather, the Court must determine where public policy is to be found, what the specific public policy is, and how it applies to the case at hand.[54] For the Court to find that no public policy prevents the continuing development of the common law is wholly different from positively declaring the public policy of the state.[55]

This Court finds and concludes that for domestic relations purposes in Tennessee no public policy prevents the continuing development of the common law as it may specifically apply to the seven human beings existing as embryos, in vitro, in this domestic relations case. The Court is of the opinion, finds and concludes that the age-old common law doctrine of *parens patriae*[56] controls these children, in vitro, as it has always supervised and controlled children of a marriage at live birth in domestic relations cases in Tennessee.

The common law doctrine of parens patriae is defined as that power of the sovereign to watch over the interests of those who are incapable of protecting themselves.[57] It is well settled that Court's having historic Chancery or equity jurisdiction exercise and control the sovereign power called *parens patriae*.[58] The thrust of the equitable nature of this doctrine is that it turns its full focus on the best interests of the child; its concern is not for those who claim "rights" to the child, nor for those who claim custody of the child, nor for those who may suffer perceived or real inequities resulting from scrupulously guarding the child's best interest.[59]

The doctrine of parens patriae is most commonly expressed as the

"best interests of the child doctrine" and its sole objective is to achieve justice for the child.[60] In the case of very young children, it was a former practice in Tennessee for many years to confuse the so-called "Tender Years Doctrine" (the placing of children of tender years with their Mother, regardless of the circumstances) with the "best interests of the child" rule. In 1987, our legislature amended the custody provisions of our Tennessee divorce statute to create a rebuttable presumption of parental fitness in child custody cases, mandating the long-standing test, however, "...as the welfare and interest of the child or children may demand..."[61]

In the case at bar, the undisputed, uncontroverted testimony is that to allow the parties' seven cryogenically preserved human embryos to remain so preserved for a period exceeding two years is tantamount to the destruction of these human beings. It was the clear intent of Mr. and Mrs. Davis to create a child or children to be known as their family. No one disputes the fact that unless the human embryos, in vitro, are implanted, their lives will be lost; they will die a passive death.

Mr. Davis strenuously objects to the anonymous donation of the human embryos even for their survival; Mrs. Davis wants to bring these children to term; the human embryos were not caused to come into being by Mr. and Mrs. Davis for any purpose other than the production of their family. Therefore, the Court finds and concludes that it is to the manifest best interest of the children, in vitro, that they be made available for implantation to assure their opportunity for live birth; implantation is their sole and only hope for survival. The Court respectfully finds and concludes that it further serves the best interest of these children for Mrs. Davis to be permitted the opportunity to bring these children to term through implantation.

It is the judgment of the Court that the temporary custody of the parties' seven cryogenically preserved human embryos be vested in Mrs. Davis for the purposes set-forth hereinabove, and that all matters concerning support, visitation, final custody and related issues be reserved to the Court for further consideration and disposition at such time as one or more of the seven cryogenically preserved human embryos are the product of live birth.

Mr. Christenberry, Counsel for Mrs. Davis, will prepare an appropriate Order, pursuant to and in accord with the provisions of

the Court's Opinion, submit same to Counsel for Mr. Davis and to Counsel for Dr. King for approval as to form, and the Order will be tendered to the Court for entry on or before October 23, 1989, taxing the costs hereof to the Plaintiff.

This 21st day of September, 1989.

W. DALE YOUNG, Circuit Judge

Fifth Judicial District, Tennessee

CERTIFICATION

THE UNDERSIGNED hereby certifies that a true, correct, and exact copy of the foregoing Opinion of the Court has, the day and date shown below, been hand-delivered to each Counsel of Record in the above captioned case.

THIS 21st day of September, 1989.

W. DALE YOUNG, Circuit Judge

Fifth Judicial District, Tennessee

APPENDIX A

(Footnotes for Appendix A appear
immediately following the Appendix text.)

Some Fundamental Principles Utilized By The Court

The fundamental duty of any Court is to fairly and impartially administer justice as between the litigants, resolving all their disputes, if possible, so a just end results. Litigants are entitled to understand how the Courts arrives at its decision, even if they disagree with the resulting judgment.

Where litigation affects or is of interest to a material segment of the public, the Court is persuaded that an additional and important responsibility is imposed on the judiciary: to assist the public in understanding the procedures of the Court.[1] With this in mind, the Court deems it appropriate to briefly outline some of the basic principles of law and rules of evidence which are to be considered by the Court in connection with its decision in this case; and of equal importance, it will also be noted that there exist many theories, ideas and concepts which may not be considered by the Court in connection with its decision in this case.

The duties and responsibilities of a Trial Court are numerous and are largely carried out by the Judge without the assistance of others. The Judge is assisted in his administrative duties by his Secretary, his Court Officer(s), the Clerk of the Court and the Clerk's Deputy Clerks. Trial Judges in Tennessee are not provided law clerks to assist the Court in its research of the law; it is the duty of Counsel for litigants to call to the Court's attention applicable legal precedents and, through arguments given, either orally or through written briefs, to persuade the Court to apply the referenced law to the facts in the record of the case.

Occasionally, learned members of the bar, on their own initiative or at the request of the Court with the knowledge of the parties, file *amicus curiae* briefs ("friend of the court" briefs) to aid and assist the Court in resolving issues of precedential or unusual nature.[2] The Honorable Richard Hash, a member of the Blount County, Tennessee Bar has filed amicus briefs in this case, for which the Court is most grateful.

The Oath of Office of a Judge

In considering the responsibilities of a Trial Court, it is important to understand that the Judge has taken an oath of office to administer justice without respect of persons, to impartially discharge all the duties incumbent on him to the best of his skill and ability and he makes a public affirmation to support the Constitution of the state of Tennessee and of the United States of America.[3]

Trial Court's General Duty

The Trial Court's general duty is not to change the law, but to work out the principles already sanctioned by the practice of the past; the duty is to develop the principles which are found with such consistency as the Trial Court may be able to attain.[4]

Weighing the Evidence

This case was heard by the Court without the intervention of a jury; domestic relations cases are generally conducted in that manner.

As the finder of fact in a non-jury case, the Court is bound to determine the facts by what the law perceives to be the "preponderance of the evidence," which means that amount of factual information presented to the Court during the course of the trial which is sufficient to cause it to believe that the matter being asserted is probably true. In order to preponderate, the evidence must have the greater convincing effect in the formation of the belief about the facts; and if the evidence on a particular issue appears to be equally balanced as between the contending parties, the party having the burden of proving that particular issue must fail. The term "preponderance of the evidence" is sometimes expressed as the "greater weight of the evidence."[5] [6]

The evidence considered by the Court in connection with its findings of fact may be either direct or circumstantial evidence. It is direct evidence if it proves a fact without any inference, and which in itself, if it is true, conclusively establishes that fact. It's circumstantial evidence if it proves a fact from which the inference of the existence of another fact may be drawn.[7] The law makes no distinction between direct and circumstantial evidence as to the degree of proof required.

The finder of fact is correct in considering any evidence of probative value, that is, evidence which has a tendency to prove or

actually proves a fact.[8]

No Prejudice, Passion, Sympathy

In deciding any case, the Court must not be influenced by prejudice, passion or sympathy, for or against any party.[9] Cases are to be decided by the head, not by the heart.

Conflicting Testimony

Many times, the Court will hear conflicting testimony. In that connection, it is the law of evidence in the state of Tennessee that the testimony of one witness worthy of belief is sufficient for the proof of any fact. Cases are not decided in conformity with the testimony of a number of witnesses which does not produce conviction in the mind of the Court against the testimony of a lesser number of witnesses or other evidence which appeals to the mind of the Court with more convincing force.

An issue is not to be decided by the simple process of counting the number of witnesses who have testified on the opposing sides, the final test is not in the relative number of witnesses, but in the relative convincing force of the evidence.[10]

In reaching its decision, the Court must consider only the evidence in the case; however, the Court is not required to set aside its common knowledge—"horse sense"—as it has the right to weigh the evidence in light of its own observations and experiences of life."[11]

Credibility of the Witnesses

The finder of fact is the sole and exclusive judge of the credibility (or believability) of the witnesses who testify in a case. In determining the credibility of a witness, it is proper to consider any matter that has a tendency in good reason to prove or to disprove the truthfulness of that witness' testimony and among the many things the trier of fact may consider in judging the credibility of the testimony of any witness are the following: the demeanor of the witness while testifying and the manner in which he testifies; the character of that witness' testimony; the extent of his capacity to perceive, to recollect or to communicate about any matter about which he testifies; the extent of his opportunity to perceive any matter about which he testifies; and the existence or non-existence of a bias, interest or other motive for giving testimony.[12]

Discrepancies in Testimony

Often, the trier of fact will note discrepancies in a witness' testimony or between his testimony and that of others. The notation of that fact, within itself, does not necessarily mean that the witness should be discredited. Whether a discrepancy pertains to a fact of importance or only to a trivial detail should be considered in weighing its relative significance.[13]

Expert Witnesses

Courts often hear testimony from expert witnesses. A witness who has special knowledge, skill, experience, training or education in a particular science, profession or occupation may give his opinion as an expert as to any matter in which he is skilled.

In determining the weight to be given such an opinion or in resolving conflicts in the testimony of different expert witnesses, the trier of fact should consider the qualifications and credibility of the expert, the relative qualifications and credibility of the other experts, as well as the reasons, the facts and any other matters upon which any opinion is based.

The Court is not bound by an expert's opinion, but it must give the weight, if any, to which the Court thinks it is entitled.[14]

It must be emphasized that expert testimony is adduced only to aid the trier of fact to understand the evidence, not to dominate or control the Court in the decision of the disputed issues.[15]

The Judgment

In its simplest form, the duty of the Trial Court is to make findings of fact based on all the evidence presented during the course of the trial, regardless of who presented it, and to apply the applicable law to those facts as the Court finds them to be. The result is the Court's judgment in the case.

The Technical Record

The facts which the Court finally decides as true in the case must appear in the record of the proceedings. The record of the proceedings is comprised of the pleadings filed by the litigants, any exhibits appropriately attached to the pleadings, the testimony of the parties and their witnesses given under oath in open Court, any testimony submitted to the Court by way of deposition (testimony given outside of Court, under oath, and transcribed both as to questions and

answers by a Court Reporter, typed, and in bound form), and any exhibits to the testimony of the parties and their witnesses deemed appropriate by the Court at the trial under applicable rules of evidence.

Judgment Based On In-Court Proceedings

The Judge of a Court does not live in a vacuum. Just as any other citizen, the Judge is exposed to the opinions and ideas of others outside the Courtroom by way of radio, television, newspapers, magazines and the like. This Court has received hundreds of communications through the mail from most sincere people who have expressed their opinion on the case, sent newspaper clippings and other material for the Court's consideration.

It is not proper for the Court to consider such extrajudicial communications in making any findings of fact, conclusions of law and the resulting judgment of the case. This case has not been decided by the Court based upon or influenced by any such extrajudicial communications.

As a citizen, the Judge of this Trial Court is keenly aware of the various theological positions which may be impacted by the Court's judgment in this case; the Court is aware of the various ethical positions which may be impacted by the Court's decision in this case, the Court is aware that many members of the public consider the questions involved to be of a strict moral nature, not of a legal nature, and that the impact of the Court's decision may offend, give support to or otherwise affect many moral views of a substantial segment of the public; the Court is aware of the so called "pro-life" and "pro-choice" factions of society and the Court's decision in this case may offend, give support to or otherwise impact one side or the other; and finally, the Court knows the positions of the political parties may be impacted by the Court's decision.

Consideration of these matters do not come within the purview of the duty or authority of this Court; the Court's duty is to decide the case based on the evidence before it and the applicable law to be applied to the facts as the Court finds them to be. The matter of public policy is fully dealt with by the Court in its Opinion.[16]

Divorce Proceedings

The case at bar is a domestic relations case, heard by the Court

without the intervention of a jury and is, by its very nature, an equity cause of action.

In a divorce case, it is incumbent upon the Trial Court to take full responsibility over all issues involved with and arising from the marriage relationship of the husband and wife. The Court must find the facts and apply the law in order to make an equitable distribution of the parties' property, if any, and provide for the care, custody and support of the parties' minor children, if any.[17] [18]

Because divorce is statutory, the Court must look to the mandates of the legislature of the state of Tennessee relative to the dissolution of the parties' marriage and in considering all the issues involved in connection with the dissolution. These statutory provisions are discussed in the Court's Opinion.

Equity Jurisdiction

In domestic relations matters, the Circuit Courts of our state are vested with the same equity jurisdiction as exists inherently in the jurisdiction of the Chancery Courts of our state.[19]

The system of jurisprudence called Equity is best defined by describing its origin. In England, when an injustice was found at law, or perhaps the law had no remedy for a particular circumstance, a plea to the Crown or to its Lord Chancellor led to the creation of a separate system of law—one where the Chancellor, as "keeper of the King's conscience," sought to do equity and to cure the injustice and inequities often caused by the inflexible forms of the common law. As the system of equity jurisprudence grew, its hallmark became one of flexibility and invention to meet new situations and circumstances.[20]

Out of equity jurisprudence has arisen a litany of equity maxims: universal statements of justice. Equity maxims lie at the foundation of universal justice and have been worthily and aptly called "the law of laws."[21] It is a part of our jurisprudence system that in default of the law, the maxim rules;[22] maxims have an inherent probative force and need not be proved[23] and, among many other salient, sage pronouncements, one maxim forcefully notes that the welfare of the people is the supreme law and the rights of the individual must be subordinated to public good.[24]

Judicial Discretion

Another fundamental tool in the administration of equity

jurisprudence is the ability of the Court to temper the Court's decisions with judicial discretion.

Judicial discretion may be defined as the liberty which a Judge possesses to decide as may seem to him, in the light of his experience, right and just under the circumstances of the particular case, not being governed in such decision by any inflexible rule of law, but being guided by the principles of law and justice.[25]

This flexibility is needed in our jurisprudence system: no compiler of laws and codes has yet been able to devise a system of laws that will embrace all situations and will furnish the means of solving all jural and social difficulties. In the very nature of things, it is impossible to foresee and anticipate all events of life; yet Judges and lawyers must never forget that things unanticipated and unsuspected will surely arise and those matters must be dealt with as difficulties and obstructions which must be solved by the possessors of the power to adjudicate; hence the unquestioned assumption of the Judges of the right and the power to dispose of the unheard and the unpredictable.[26]

In its broadest sense, judicial discretion is a feeling of right and wrong which has arisen or been brought about from the combination of various legal and equitable considerations, which have never been reduced to codes or written laws but are nevertheless essential parts of an enlightened system of jurisprudence.[27]

In its narrower sense, it is referred to as the capacity of the trial judge to understand and to apply the law of the land to particular facts or situations arising in a pending lawsuit and which call for some decision which will tend toward a settlement of the rights of the parties and the attainment of justice.[28]

Judicial discretion concerns itself with the election or choice between two or more courses of action. It implies a discriminating examination of alternatives for the purpose of arriving at a conclusion as to which is the better way of solving or obviating a difficulty or attaining a certain end. It is further suggested that judicial discretion has reference to the mental faculty of separating the whole of a set of circumstances into its parts and the balancing of its several elements and when it is considered in connection with judicial power, it can readily be seen that the true meaning of the term is the discriminating consideration of all the contending elements of forces not con-

trolled by well-established rules of law and the adoption of the most feasible, convenient, and efficacious way of proceeding with the administration of justice.[29]

But judicial discretion has its limitations, and a notable one is that it must be understood that at no time can Judges act arbitrarily or capriciously and in disregard of the spirit of the law and of sound public policy.[30]

Judicial Notice

It has been aptly stated that for every rule at law or in life there is at least one exception. Judicial notice is a note-worthy exception to the rule that each case must be decided based strictly on the technical record before it.

Judicial notice is the cognizance by the Court of certain facts which Judges may properly accept and act upon without proof, because they already know them. A fact of which a Court takes judicial notice must be universally regarded as established.[31]

Our Tennessee Courts have spoken often about how our Trial Courts have used and abused their concepts of judicial notice. The appellate Courts have held that a Trial Court cannot take judicial notice of the contents of scientific books and treatises,[32] but has permitted Trial Courts to take judicial notice of facts universally known and found in encyclopedias and dictionaries if the facts are of such universal notoriety and so generally understood that those facts may be regarded as forming a part of the common knowledge of every person.[33]

In addition, Trial Courts are permitted to take judicial notice of facts relating to human life, health and habits, and management and conduct of businesses which are common knowledge; and such matters may be properly considered by the finder of fact in its determination of inferences to be drawn from proven circumstantial facts.[34]

The Intent of Appendix A

The foregoing is submitted for the reader's consideration of several general rules and principles which assist the Trial Court in reaching a fair and just decision. But because each case is different, the specific rules applicable to each case may also vary, according to the nature of any given case.

It is the Court's intent that by delineating the foregoing rules and principles, some of the judicial mystique surrounding the way our Courts operate will be stripped away and the reader will better understand how and why some results are reached in this complicated legal proceeding.

FOOTNOTES: EXHIBIT A

(1) *Rules of the Supreme Court of the State of Tennessee,* Rule 10, Canon 3, A. (6).

While this Canon does not direct such action, the Canon does not prohibit Judges from making public statements in the course of their official duties or from explaining for public information on the procedures of the Court.

(2) *Rules of the Supreme Court of the State of Tennessee,* Rule 10, Canon 3, A. (4).

In the commentary to this Canon, the following appears: "An appropriate and often desirable procedure for a court to obtain the advice of a distinguished expert on legal issues is to invite him to file a brief amicus curiae."

(3) Oath of Office of William Dale Young, September 2, 1986.

(4) *Hamm v. Hamm,* 204 SW 2nd 113 at 127 (1947).

Quoting with approval a statement to the same affect made by United States Supreme Court Chief Justice Holmes.

(5) In outlining many of the fundamental concepts to be applied in this non-jury case, the Court has modified some of the concepts set-forth in the *Tennessee Pattern Jury Instructions (Civil).*

The pattern instructions statements are useful because they are framed in such language as to be understood by the ordinary layman and, while the pattern instructions do not have official status, they represent the collective wisdom of the Committee on Pattern Jury Instructions (Civil) of the Tennessee Judicial Conference and represent the collective understanding of that Committee as to what the law of Tennessee is or would be, should there be lack of specific authority for the particular instruction.

The references to these instructions are hereinafter designated "*T.P.I.*" followed by the charge number.

(6) *T.P.I.* 2.40
(7) *T.P.I.* 2.01
(8) *Black's Law Dictionary* (3rd Edition)
(9) *T.P.I.* 1.10
(10) *T.P.I.* 2.02
(11) *T.P.I.* 1.15
(12) *T.P.I.* 2.20
(13) *T.P.I.* 2.21
(14) *T.P.I.* 2.30

APPENDIX B

The following constitutes the Court's summary of testimony given by the respective witnesses at the trial:

Junior Lewis Davis

Junior Lewis ("J.R.") Davis is thirty years of age, employed as an electrician and a refrigeration technician by the Maryville Housing Authority, Maryville, Tennessee, earning about $17,500.00 annually.

Mr. and Mrs. Davis met while both were in the United States Army in Germany and were married about nine years ago. Both Mr. and Mrs. Davis very much wanted to have children and after Mrs. Davis suffered some half dozen tubular pregnancies, the couple consulted Dr. Ray King in the Fall, 1985, shortly after which they entered the in vitro fertilization program under Dr. King's guidance.

After several IVF attempts, Mrs. Davis failed to be pregnant and the parties temporarily abandoned the program and sought to adopt a child. A Kentucky girl, pregnant with child, offered her child for adoption prior to birth. The Davises paid her medical expenses, but upon delivery, the Mother chose to keep the child.

The parties had discussed on many occasions their keen desire to have a family, had decided they wanted at least two children by way of adoption or through IVF and were thwarted in their attempts through either method.

In the Fall, 1988, Mr. Davis noted the parties marriage had been somewhat unstable for about two years. Notwithstanding the status of his marriage in the mind of Mr. Davis, (Mrs. Davis testified she was not aware their marriage had incurred the problems Mr. Davis

testified about), the Davises agreed to again enter King's IVF program in an effort to have a child. Mrs. Davis counseled with Dr. King about cryopreservation of embryos for future use, Mrs. Davis explained the technique and procedure to Mr. Davis and the parties agreed to this technique as a part of their resumption of IVF attempts to accomplish a family.

In December, 1988 nine ova were surgically extracted from Mrs. Davis, all of them inseminated in Dr. Shiver's laboratory with Mr. Davis' sperm, the nine ova were fertilized, two were implanted in Mrs. Davis with the hope that one would cause her to become pregnant and the remaining seven were cryopreserved by Dr. Shivers for future implantation purposes. No detailed discussions were undertaken with Mr. Davis by Dr. King or others relative to cryopreservation and no decision was made by Mr. and Mrs. Davis as to the disposition of their cryopreserved embryos in the event of divorce, death or other unforeseen eventuality. No writing was executed by the parties as to the subject embryos.

The night of the implantation (December 10, 1988), Mr. and Mrs. Davis discussed how long the embryos would last in cryopreservation and the possibility of donating embryos not utilized in causing Mrs. Davis to be pregnant. Mr. Davis acknowledged the embryos were frozen with "...the intent they be saved for later use...," but maintained there was no decision or even any discussion relative to whether they would be used in the marriage or out of the marriage.

Mr. Davis requests the Court to: (1) give Mr. and Mrs. Davis joint custody of their embryos; or (2) prohibit Mrs. Davis or another from using the embryos for implantation until he can decide about their disposition; or (3) if none of the foregoing, then consider only Mrs. Davis as a suitable party for implantation (Mr. Davis opposes destruction of the embryos, but prefers their destruction rather than allow someone other than Mrs. Davis to implant the embryos).

As to his joint custody request, Mr. Davis emphasized that he does not want exclusive control over the embryos; he insisted that he and Mrs. Davis should jointly decide about their disposition; that all decisions prior to the divorce were jointly made by the parties; that only the parties should be involved as to future decisions. Davis insists that until the parties can agree, the embryos should remain in their cryopreserved state.

Mr. Davis opposes Mrs. Davis' use of the embryos because he does not want to be "...raped of my reproductive rights...;" he maintains her use without his consent forces unwanted parenthood on him, a situation which disturbs him greatly. He doesn't want a child produced to live in a single-parent situation. Mr. Davis detailed how his own life, at age 6, had been shattered by the divorce of his Mother and Father; how he and three brothers were sent to a boys home where he stayed until age 18; he related the problems he experienced being away from his family and he emphasized his despair because there was no natural bond with his parents. Because of his own shattered and disappointing childhood, he became angry, he became distrustful of others and he bears that psychological burden even today. He strongly and sincerely insists that because of his poor relationship with his own parents he strenuously objects to bringing a child into the world who would suffer the same or a similar experience without any opportunity on his part to bond with his child.

Mr. Davis objected to the anonymous donation of the embryos to another infertile couple inasmuch as it would place a great psychological and emotional burden on both him and Mrs. Davis. In addition, he testified that the parents of the potential child might possibly divorce in the future, giving rise to enhanced apprehension for the child's welfare.

As to destruction of the embryos, Mr. Davis speculated that someday he might change his mind about their disposition and would then regret any such action. He opposes their destruction except in lieu of donation to anonymous recipients.

It is Mr. Davis' position that the embryos do not constitute life, but firmly believes the embryos have the "potential for life." (Davis commented that he is very much opposed to abortion.) He maintained that if the only choices are to donate the embryos to anonymous recipients or allow Mrs. Davis to use them, he would prefer Mrs. Davis having them.

If Mrs. Davis is awarded the embryos and a child results, Davis testified that he would visit with the child as much as possible and he would try to develop a parent-child bond; in addition, he would actively seek to support his child and he would actively seek the custody of his child.

Davis readily admits that he and Mrs. Davis began and continued the IVF program with Dr. King with the intent and for the purpose of having a child or children.

John A. Robertson

Professor John A. Robertson is a Baker and Botts Professor of Law at the University of Texas at Austin, Texas.

Professor Robertson testified that he is a member of the American Fertility Society's Ethics Committee, serving since the Fall, 1985. The AFS's first publication came about in 1984-85 and on the subject of ethical considerations of the human preembryo, the AFS had taken the position that human preembryos are not persons, but deserve special respect because human preembryos have the potential to become persons. AFS guidelines constitute suggested standards of care for physicians involved in fertility practice and are generally utilized for litigation purposes. Robertson did not appear as a spokesperson for the AFS, but as a scholar who researched the issue, formed an opinion and written an article concerning this specific case, as well as many other articles dealing primarily with issues relating to non-coital reproduction.

Professor Robertson described his understanding of a human preembryo as an entity composed of a group of undifferentiated cells which have no organs or nervous system. He testified that at about 10-14 days, the preembryo attaches itself to the uterine wall, develops its primitive streak and life then commences. Robertson believes it is "not clear" that a human preembryo is a unique individual; that simply because fertilization has occurred, the gamete contributors have not procreated.

Robertson asserts the position that both gamete contributors are the only decisional authorities over their preembryos; in the event the gamete contributors cannot agree, it is his position the preembryos should be allowed to die a passive death.

Where there is no [statutory] law, no agreement between the gamete contributors nor any previous Court decision on which to rely, Professor Robertson reasons that the Court, as in this case, should then decide the case by balancing the equities as between the two gamete contributors and, in this case, decide in favor of the party who does not want to go forward with parenthood, Mr. Davis. The precise

issue in this case, according to Professor Robertson, is the balancing of the equities; that is considering the relative burdens of the parties, the Court should make a determination of which party will be injured more if the process goes forward. In this case Professor Robertson sides with Mr. Davis because of the traumatic psychological burdens of being forced to be a parent against his will, countered by the ability of Mrs. Davis to apparently successfully participate in the IVF program with another partner in the future.

As to the law applicable to in vitro fertilization, Robertson concedes that his research has indicated there is no case precisely in point to give this Court guidance. He recited Great Britain's Wornack Committee consideration of similar issues in 1978, the *Rios* case in Australia in 1984, the New York *Delrio* tort case in 1978, the Pennsylvania Statute of 1980 (recordkeeping, mainly), and the Louisiana Statute passed in 1986 which, among other things, limits the authority of parents as to disposition of their preembryos and grants certain as yet unquantified rights to preembryos to sue and be sued.

Robertson opines that the *Webster* case possibly leaves open the question of whether a state may pass a Constitutionally sound statute regulating IVF transactions derived from the point of view that fertilization/conception is the commencement of human life. The *Webster* Court declined consideration of the preamble issue, did not decide it and said it had no effect or bearing on the *Webster* issues, thus leaving unsettled whether the preamble provisions passed relevant Constitutional scrutiny.

Irving Ray King

Dr. Irving Ray King is a medical doctor, licensed by the State of Tennessee and has been involved in the subspecialty of Gynecology, Infertility, Reproductive Endocrinology, for some twelve years. He operates the Fertility Center of East Tennessee, Knoxville, Tennessee; the intent of his IVF practice and the ultimate goal of the cryopreservation procedure is to assist infertile couples to become parents.

Dr. King testified that the natural human pregnancy rate is about 25%, that humans are not the best reproducers of the mammalian species: that there are seven general indicia of infertility;

and there is about a 50% success rate in correcting some or all of the general causes of infertility.

As to Mrs. Davis. Dr. King testified that while she could become pregnant she could not follow with a normal birth. After some five miscarriages and surgery in 1983, he recommended in vitro fertilization as an alternative way of accomplishing the strong desire of Mr. and Mrs. Davis to have a family.

Dr. King outlined the history of in vitro fertilization, beginning with the first success in the United States in 1978 and how he came to establish his clinic in the Fall, 1984. Statistics as to success rate and the methodology and procedures of in vitro fertilization were outlined.

In October, 1988 Dr. King employed a new program whereby excess preembryos could be cryogenically preserved for later implantation, thereby avoiding the necessity of aspiration and insemination on the occasion of each implantation. Dr. King delineated the December, 1988 procedures resulting in the extraction from Mrs. Davis of nine ovum, the laboratory insemination of the ovum, all of which were fertilized, two of which were implanted and seven of which were cryogenically frozen. Dr. King is of the opinion that Mrs. Davis has a 52% chance of becoming pregnant utilizing the seven preserved preembryos and there is no medical reason Mrs. Davis cannot use the preembryos.

King testified that in the development of a human child from the first cell division after fertilization to the embryo stage, there is first a one cell gamete, a zygote (after the first cell divides), a preembryo (up to fourteen days after fertilization) and finally an embryo (after fourteen days and upon cell differentiation).

As to the Davis' IVF attempts, Dr. King testified that the normal cost was from $4,000 to $6,000, each attempt. No forms were signed by the Davises and Dr. King has no recollection of whether Mr. Davis was present when he spoke with Mrs. Davis about whether unused preembryos would be cryogenically preserved.

Dr. King testified that cryopreserved human preembryos can be kept in good condition for at least two years, but King had no further data on the length of cryopreservation. Dr. King acknowledged that freezing and thawing is the hazardous part of cryopreservation. An annual storage fee is charged for cryopreservation.

Normally, a woman can produce eggs until about 52 or 53; after 35, there is a concern because of Down's Syndrome and other genetic malfunction; and it is possible to implant eggs relatively late in life, as long as the eggs have been extracted early in life.

When the seven preembryos were cryopreserved, five were of the four-cell stage and two were in cleavage between four and eight cells. As to all seven, there is no cell differentiation and twinning is still possible.

Dr. King knows of no physical reason why Mrs. Davis cannot undergo future ovum aspirations with a similar success rate, recognizing that her health varies from cycle to cycle. Dr. King has treated Mrs. Davis for six years, has performed 21 aspirations and has transferred 14 preembryos, none of which have resulted in pregnancy. Dr. King characterizes Mrs. Davis as "a committed person in an effort to have a child."

Considering Mrs. Davis' infertility, IVF is the only method available to Mrs. Davis for having a child.

Dr. King testified there are no guarantees Mrs. Davis could ever produce another usable egg and notwithstanding his clinic's current policy to not allow single persons to participate in the IVF program, if the Court awarded her the preembryos, he would implant the preembryos at her request.

Dr. King's theory of balancing the equities between the parties is that there is no more psychological burden on one party than the other; that both parties are very much emotionally involved; that the seven preembryos are of excellent quality; that a 52% chance of pregnancy exists for Mrs. Davis if all seven preembryos were thawed and implanted; and that the greater benefit would be bestowed if Mrs. Davis were allowed to use them.

Under all circumstances, Dr. King opposes destruction or unlimited cryopreservation, suggesting the embryos be anonymously donated if not used by Mrs. Davis.

Charles Alex Shivers

Dr. Charles A. Shivers is the Head of the University of Tennessee Department of Zoology, Knoxville, Tennessee. Since 1963, Dr. Shivers has been involved in teaching and research in biology and chemistry at U.T.; he is an Embryologist, teaching and directing graduate work

in the study of the development of the embryo. Dr. Shivers has worked in the field of embryology since 1958 and has worked with in vitro fertilization with Dr. King since 1984. His work is primarily in the laboratory.

Dr. Shivers explained to the Court the various steps and procedures from aspiration (extraction of ovum) to implantation and gave detailed testimony regarding his laboratory work.

In explaining the normal process of his laboratory work for IVF patients after aspiration, Dr. Shivers defined "insemination" as the laboratory worker's placing of the male sperm and the female ovum together in a laboratory petre dish and that "fertilization" was the actual joinder of an ovum and a sperm (a union, fusion), which process was entirely completed by the sperm and ovum without the intervention of lab workers or mechanical devices. Under ordinary circumstances, Dr. Shivers said, fertilization takes place sometime after insemination and usually within four-six-eight hours of insemination. Ordinarily, inseminated eggs are left in a secure laboratory environment overnight for examination by him the following morning. Under ordinary circumstances, and upon inspection the following morning, fertilization can be determined by using a powerful microscope; the fertilized ovum continues in the laboratory environment until from two to eight cell development has taken place at which time implantation is usually perfected through an outpatient type procedure.

Dr. Shivers stated that cryopreservation of animal cells had been conducted since the 1970's and that he had participated in the cryopreservation in connection with the IVF program since 1988.

As to his contact with Mr. and Mrs. Davis, Dr. Shivers indicated that he had worked with the couple since July 30, 1985; that thereafter he had completed only one cryopreservation of human embryos for the Davises when nine ova were extracted from Mrs. Davis, all nine were inseminated in his laboratory, two were transferred by Dr. King to Mrs. Davis and the remaining seven were committed to cryopreservation pursuant to considerable discussion with Mr. and Mrs. Davis as to how many preembryos to transfer and how many preembryos to cryopreserve.

Dr. Shivers stated that all seven frozen embryos were from the four to eight cell development stage when frozen and all of them

appeared to be of first-rate quality.

Dr. Shivers expressed the opinion that the chances of a pregnancy resulting from frozen then thawed preembryos are better than the implantation of freshly fertilized preembryos, the risk to cryopreserved preembryos being mainly in the freezing process.

Dr. Shivers testified that the longest human preembryos have been stored and remain viable has been for an approximate two-year period; that embryos of mice have been successfully preserved for as long as ten years; and that it was impossible for him to offer an opinion about the condition or human preembryos past two years.

In the opinion of Dr. Shivers, a human preembryo is a zygote up to eleven-fourteen days and consists largely of undifferentiated cells; that after attachment to the uterus wall and the appearance of the primitive streak, the cells then become different: that is organs, organ systems, body parts and the like are formed. At the time of fertilization, Dr. Shivers testified, genetic controls are "locked in forever" and control who the preembryo will later be, but, Shivers stated, "...as far as we know..., to my knowledge..., there is no way to distinguish the cells [at the zygote state]...[T]hey are the same [i.e., undifferentiated]..."

During the course of his testimony. Dr. Shivers greatly assisted the Court by using photographic slides to visually demonstrate many areas of his testimony, for all of which the Court is deeply grateful.

Deborah Cooper McCarter

Deborah Cooper McCarter, is a Registered Nurse, the primary patient coordinator for Dr. King's IVF clinic. She is a liaison between patients and their spouses and Dr. King, she teaches medication injection techniques, gives new couples counseling about IVF and its step-by-step procedures and generally is an administrative assistant to Dr. King, scheduling and coordinating the various IVF procedures from start to finish.

Normally, Ms. McCarter is responsible for obtaining informed consent-type forms to be executed by participants, but, through oversight no forms were executed by the Davises. (The December, 1988 document utilized by Dr. King contained no covenant or understanding which would be, had it been executed, dispositive of the issues in this case.)

In December, 1988, Ms. McCarter recalls an approximate ten minute discussion with Mr. and Mrs. Davis relative to the cryopreservation process, at which time both Mr. and Mrs. Davis acknowledged themselves to be willing participants in cryopreservation of embryos not utilized for implantation on December 10, 1988.

On the morning of Mrs. Davis' last implantation (December 10, 1988), Ms. McCarter distinctly recalls a statement made to her by Mrs. Davis (she is not certain at all that Mr. Davis was present when the statement was made) to the effect that if she became pregnant as a result of the December, 1988 implantation, she would consider donating the cryopreserved embryos to another infertile couple for implantation.

Mary Sue Easterly Davis

Mary Sue Davis is twenty-eight years of age; she has twin brothers. At the trial, Mrs. Davis was employed by the Sea Ray Boat Company, Vonore, Tennessee, as a sales representative, earning about $18,000.00 annually. The record shows that since the trial, Mrs. Davis is now domiciled in the state of Florida.

Mrs. Davis testified at some length about the trauma and pain she suffered resulting from five tubal pregnancies during the course of the parties' marriage. At the fifth tubal pregnancy, the marriage had lasted four years; she concluded she could no longer endure further natural attempts to bear a child even though she and Mr. Davis remained desirous of having children.

The couple turned to Dr. King's IVF program in 1985 and six IVF attempts were made for her to become pregnant. She gave considerable testimony relative to the many injections she received or administered to herself to prepare her body reproductive system for the removal of her eggs in preparation for the IVF procedures; and she emphasized the painful, physically trying, emotionally and mentally taxing ordeals she endured to participate in the program. During six IVF attempts, no cryopreservation procedures were employed; each implantation was the culmination of weeks of preparation drugs to stimulate her reproductive system, surgical extraction of ova, insemination in vitro, anxious hours of waiting to confirm fertilization, implantation then additional weeks of waiting

to determine if an in utero pregnancy had occurred. The six IVF attempts were futile; each attempt cost from $4,000.00 to $6,000.00.

At the last aspiration and implant (December, 1988) and at the time the embryos were cryopreserved. Mrs. Davis testified she didn't realize the parties' marriage was so "rocky", else she wouldn't have participated in the attempt; that there was an understanding between herself and Mr. Davis relative to the cryopreservation process and she testified that "...we [Mr. and Mrs. Davis] made decisions together as to when to re-enter [the IVF program]..."

Mrs. Davis testified the embryos are "...the beginning of life...I'm the Mother of the embryos...;" she feels an attachment to the embryos, views them as children, testified she would like to have her own children through their implantation and requested the Court to award the embryos to her for that purpose. In the event she is not allowed to utilize the embryos, she testified, she would not foreclose the possibility of donating them for use by another infertile couple.

Mrs. Davis testified that her husband consented to being a Father; that their efforts constituted a partnership to become parents; and that she and Mr. Davis had tentatively planned to implant one cryopreserved embryo in March or April, 1989. She says it is difficult for her to understand her husband's somewhat sudden change in position.

Mrs. Davis assured the court that she would have no problem raising a child as a single parent, especially in light of Mr. Davis' expressed willingness to be a Father to and support such a child even after dissolution of their marriage; that allowing the embryos to remain frozen is equivalent to killing them inasmuch as she understands that two years is the maximum life of cryopreserved human embryos.

Mrs. Davis responded to Professor Robertson's testimony that the court should allow the embryos to die a passive death by remaining frozen: she maintains that if the embryos can suffer a "passive death, then they must constitute life."

Sue Easterly

Mrs. Sue Easterly, is the Mother of Mrs. Davis. Mrs. Easterly's brief testimony indicated her strong affection for her son-in-law, describing Mr. Davis as having been "...like a son to me."

Mrs. Easterly testified that she is the Mother of six children and she would very much like to be a Grandmother as the result of her daughter's having a child.

Jerome Lejeune

Dr. Jerome Lejeune is a Medical Doctor, a Doctor in Science and has been a Professor of Fundamental Genetics for about 20 years. He started his medical practice as a Pediatrician, now for several years specializing in Genetics, is a French citizen, residing, teaching and practicing his profession in Paris, France. Dr. Lejeune discovered the genetic cause of Down's Syndrome, receiving the Kennedy Prize for the discovery and, in addition, Dr. Lejeune received the Memorial Allen Award Medal, the highest award for work in the field of Genetics in the world. Both awards are conferred in the United States.

Dr. Lejeune testified that artificial fertilization is not new to biology, having been applied to animals long before it was applied to man; and that in vitro fertilization is an area with which he is familiar, having first written an article on the subject some fifteen years ago, before the modern practice of IVF came into being.

In considering the IVF process, Dr. Lejeune stated it is important to understand the meaning of fertilization at the beginning of a human being: that each human has a unique beginning which occurs at the moment of conception. Dr. Lejeune testified that when the 23 chromosomes carried by a sperm encounter the 23 chromosomes carried by the ovum, all information necessary and sufficient to spell out all the characteristics of a new human being is then gathered in one place; that upon fertilization of the ovum by the sperm, a unique personal constitution is spelled out for the specific human being then created, which personal constitution has never occurred before and will never occur again.

Dr. Lejeune testified that the novelty of the unique creation has been known by scientific induction for more than 50 years, but because of the minuteness of the information written on the DNA molecule of the chromosome, such supposition was a mere scientific hypothesis until about two years ago when it became a demonstrable scientific fact.

Dr. Lejeune gave detailed information to the Court relative to the

composition of the DNA molecule of a human chromosome, generally defining it as a long thread of about one meter in length, cut in 23 pieces, each piece being coiled on itself very tightly to make a spiral so that under the microscope, it appears as a very tiny rod.

In comparing the difference between IVF fertilization and natural fertilization. Dr. Lejeune stated that the only difference is that the sperm and the egg are meeting inside a tube of glass because the egg has been removed from the body of the woman and the sperm has just been added to the tube of glass, pointing out that it is not at all the inseminator who makes fertilization but it is the sperm that makes the fertilization. Fertilization, Lejeune stated, can not be implemented by man; fertilization requires that it come about directly by the cells. What is reproduced and transmitted as a result of fertilization is information by way of the DNA molecules; the information then antimates matter.

Turning to cryopreservation (sometimes called "freezing") of human embryos, Dr. Lejeune offered the opinion that temperature is merely a measure of the speed at which molecules move in a given medium; that if one progressively diminished temperature, the speed and the number of collisions between the molecules are progressively slowed down and, therefore, time is frozen, not embryos. Life is not arrested at freezing and life is not started again when thawed: time for the embryo has been arrested and in the human species, a human embryo cannot successfully withstand an arrest of time greater than two years.

As to the term "preembryo," Dr. Lejeune is of the opinion that there is no such word. In support of his position, Dr. Lejeune cited to the Court the definition of embryo, found in his dictionary printed some fifty years ago; "...that youngest form of a being..." There is no need, he testified, for a subclass of the embryo to be called a preembryo, because there is nothing before the embryo; before an embryo there is only a sperm and an egg; when the egg is fertilized by the sperm, the entity becomes a zygote; and when the zygote divides it is an embryo. When the first cell exists, all the "tricks of the trade" (or "tricks of Mother Nature" as he later called it) to build itself into an individual already exists. This fact has been known for many years, Dr. Lejeune testified, by induction but is now scientifically demonstrated in the laboratory. Lejeune stated the term "preembryo"

is misleading and was invented by the British to lead one to believe there is a difference between a preembryo and an embryo when there is no such entity as a preembryo.

In describing the cell division which takes place shortly after fertilization, Dr. Lejeune stated that at the three-cell stage, "...tiny human being..." exists and that less than two years ago through a discovery of [Dr. Alec] Jeffreys in England ("...the remarkable manipulator of DNA..."), it is now an experimentally demonstrated fact that at the three-cell stage, every individual is uniquely different from any other individual and the probability that the genetic information found in one cell would be identical to another person is less than one in one billion. Through further research and discovery not more than two years ago, Dr. Lejeune testified, Jeffreys developed a technique whereby one molecule could be taken from one cell and in the nucleus of that cell the uniqueness of the individual could be scientifically demonstrated.

But the most remarkable discovery of all, said Dr. Lejeune, came about only four years ago through the work of Sanai [sic], whereby it became demonstrated that some of the basis of DNA were carrying an extra piece of material called methyl (CH3). Dr. Lejeune testified the import of this discovery is that the DNA carried by the sperm is not underlined or crossed by methylation on the same place that the equivalent molecule, chromosomes carried by the ovum; the sperm contains the ability to underline certain information from step to step in the process resulting in the fact that at the moment the two sets of chromosomes coming from the sperm and egg are joined, they are not identical, as had been thought for years. When the ovum is fertilized by the sperm, the result is "...the most specialized cell under the sun...;" specialized from the point of view that no other cell will ever again have the same instructions in the life of the individual being created.

The special underlining instructions tell the cells when it splits in three, all the information it needs to form the unique individual under construction. Dr. Lejeune stated that during the process, as the cell develops, nothing new is learned by the developing cells, but progressively a lot of things are forgotten: the first cell knew more than the three cell stage, and the three cell stage knew more than any of those to follow. In other words, Lejeune explained, the information is

written in the first cell and it is not written progressively in the other cells. This information is not theoretical, Dr. Lejeune said, it is information which the science of genetics now knows beyond any doubt.

Lejeune described the cell resulting immediately after fertilization in this way: "...at the very beginning of life the genetic information and the molecular structure of the egg, the spirit and the matter, the soul and the body must be that tightly intricated because it is a beginning of the new marvel that we call a human..."

Assuming the embryos are early human beings, Dr. Lejeune offered the opinion that those early human beings constituted Mrs. Davis' own flesh (and are also Mr. Davis' flesh) and that the hospitality of her body is the best place in the world for them to be. He asserted that "...the early human beings in the concentration can...are not spare parts in which we could take at random, they are not experimental material that we could freeze and defreeze at our own will, they are not property that we could exchange against anything... An early human being inside the suspended time which is the can cannot be the property of anybody because it's the only one in the world to have the property of building himself... As soon as he has been conceived, a man is a man."

Because of Jeffreys' relatively recent discoveries and the development of scientifically provable procedures to verify through DNA that all of life's messages are written in the very first cell, Dr. Lejeune stated the conclusion that the mystery of cell differentiation has been solved because we now know where the information is written. He testified the observation or conclusion that the one cell of the fertilized zygote is an apparently undifferentiated cell mass is wrong; that the new findings recited definitively prove differentiation and that from the very beginning there exists an embryo.

On cross-examination, Dr. Lejeune explained the meaning of the Hippocratic Oath: that it does not matter what the size of the patient, a patient is a patient.

In explaining the difference between the rights an early human being should have compared to a later human being (such as an adult), Dr. Lejeune explained: "...as far as your nature is concerned, I cannot see any difference between the early human being you were and the late human being you are because in both cases, you were

and you are a member of our species..."

On the subject of whether or not the embryos constitute property, Dr. Lejeune testified that no scientist has ever offered the opinion that an embryo is property; that he had never heard one of his colleagues say to him or to anyone else that a frozen embryo is the property of somebody, that it could be sold, that it could be destroyed like property.

Dr. Lejeune offered the opinion that the person to have custody of the embryos is the person who "...would preserve the life of the embryos...the Solomon decision. The Mother is the one who prefers the baby be given to another than the baby being killed. Then I would suppose that the justice would be on the side of Solomon..."

APPENDIX C

The following constitute footnotes for the section of the Court's Opinion designated **"Findings of Fact and Conclusions of Law:"**

(1) Pursuant to an in-chambers conference between the Court and Counsel of record on September 7, 1989, Counsel for Mr. and Mrs. Davis agreed that it would be stipulated that subsequent to August 10, 1989, Mrs. Davis became domiciled in the state of Florida. As of September 19, 1989, no Order memorializing this stipulation has been tendered to the Court for entry.

(2) As used in the context of the Court's Findings of Fact and Conclusions of Law, in vitro fertilization means the fertilization of a human ovum by a human sperm in a laboratory container. Testimony at the trial described the entire process, about which there is no dispute. The term is used by the Court interchangeably as "in vitro," "IVF" or "in vitro fertilization."

(3) Cryopreservation is a procedure whereby the cells of plants or animals are subjected to freezing in a laboratory and unthawed through a step by step procedure for later use. Liquid nitrogen is generally utilized as the freezing agent.

(4) Ova are unfertilized human eggs.

(5) Aspiration is the process by which ova are surgically withdrawn

from the ovary.

(6) Insemination is the placing together of the sperm and the ovum.

(7) Zygote: "fertilized ovum." (Dictionary of Medical Terms for the Nonmedical Person, Second Edition, 1989, Rothenberg & Chapman)

(8) Implantation is the process whereby the physician deposits a zygote in the human uterus.

(9) Cleavage: "Process of dividing, as of the fertilized egg into successive multiples of cells, from the single cell; line formed by a groove between two parts." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989, Rothenberg & Chapman)

(10) Embryo: "...a beginning or undeveloped stage of anything . . ." (*Webster's New Collegiate Dictionary*, 1951, G. & C. Merriam Co.)

(11) Preembryo: The human entity existing before the passage of fourteen days of development, prior to attachment to the uterine wall and the development of the primitive streak. The term is used by some to distinguish a difference between a zygote in its early stages and an embryo in its later stages. The Court deals specifically with this terminology and makes a specific finding of fact about the term.

(12) Expert Witness: Reference is made to Appendix A relative to the way the opinion testimony of expert witnesses is to be treated under applicable Tennessee law.

(13) Dr. Irving Ray King is a Medical Doctor, licensed by the state of Tennessee and has been involved in the subspecialty of Gynecology, Infertility/Reproductive Endocrinology, for some twelve years. He operates the Fertility Center of East Tennessee, Knoxville, Tennessee.

(14) See Exhibit 6 for the personal data sheet outlining Dr. Shivers' educational and professional involvement in biology, chemistry and embryology.

(15) See Exhibit 5 for Professor Robertson's *curriculum vita.*

(16) Dr. Jerome Lejeune is a Medical Doctor, Doctor in Science, Professor of Fundamental Genetics on the Faculty of Medicine of Paris, France, a Practioner at l'H Hospital des Enfants Malades,

Paris, France, former Professor of Human Genetics at the California Institute of Technology, the discoverer of Down's Syndrome, recipient of the Kennedy Prize for the discovery of Down's Syndrome, Recipient of the Memorial Allen Award Medal, for the discovery of Down's Syndrome, a member of the American Academy of Arts of Science, the Royal Science of Medicine in London, England, Royal Society of Science in Stockholm, Sweden, the Science Academy in Italy, the Science Academy in Argentina, the Pontifical Academy of Science, the Vatican, the Institute of France of the Academie de Science Morale et Politique, Paris, France and the Academy of Medicine. Paris, France.

(17) *Webster's New Collegiate Dictionary,* (Second Edition).

(18) *Webster's New Collegiate Dictionary,* (Second Edition).

(19) Appendix B to the Court's Opinion constitutes a summarized version of the testimony given by each witness at the trial; it does not purport to be transcript of the testimony.

(20) Gamete: "A matured sex cell or germ cell, usually haploid in chromosome number, capable of uniting with another of like origin to form a new plant or animal." (*Webster's New Collegiate Dictionary*, Second Edition)

(21) Procreate: "To generate and produce; to begat." (*Webster's New Collegiate Dictionary,* Second Edition)

(22) Dr. Alec Jeffreys: A British Genetist.

(23) DNA: (Deoxyridonucleic Acid) "Large molecule, shaped like a double helix and found primarily in the chromosomes of the cell nucleus, that contains the genetic information of the cell. The genetic information is coded in the sequence of subunits (nucleotides) making up the DNA molecule." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989, Rothenberg & Chapman).

(24) The Report is entitled "Ethical Considerations of the New Reproductive Technologies" and appears in the September, 1986 (Vol. 46, No. 3) publication of Fertility and Sterility, Supplement 1, the official journal of the American Fertility Society. The American Fertility Society is sometimes referred to in the Opinion as "AFS."

(25) See Plaintiff's Brief In Support of Plaintiff's Statement of Issues, filed July 14, 1989.

(26) AFS Publication, Vol. 46, No. 3, Page v.

(27) AFS Publication, Vol. 46, No. 3, Page iii.

(28) AFS Publication, Vol. 46, No. 3, Page v, vi, vii.

(29) AFS Publication, Vol. 46, No. 3, Page v, vi, vii.

(30) AFS Publication, Vol. 46, No. 3, Page 29S.

(31) AFS Publication, Vol. 46, No. 3, Page 30S.

(32) AFS Publication, Vol. 46, No. 3, Page 77S.

(33) Probative Evidence: "In the law of evidence, the effect of proof; tending to prove, or actually proving. Testimony carrying quality of proof and having fitness to induce conviction of truth, consisting of fact and reason co-operating as a co-ordinate factors." (*Black's Law Dictionary,* 5th Edition)

(34) See Plaintiff's Brief In Support of Plaintiff's Statement of Issues, filed July 14, 1989, Page 5.

(35) *Romeo and Juliet* (Act 11, Scene 11).

(36) Differentiate: "1. to distinguish by a specific difference; develop differential characteristics or forms in. 2. to ascertain or express the specific difference of; discriminate...to acquire a distinct character; to become differentiated." (*Webster's New Collegiate Dictionary,* Second Edition)

(37) Molecular Genetics: "that branch of genetics concerned with the chemical structure, functions, and replications of the molecules—deoxyribonucleic acid (DNA) ribonucleic acid (RNA)—involved in the transmission of hereditary information." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989)

(38) *Andrews v State of Florida,* 533 So. 2nd 841 (1988) (Review denied 1989)

(39) *Andrews v State of Florida,* 533 So. 2nd 841 (1988) (Review denied 1989)

(40) Chromosome: "Threadlike structure in every cell nucleus that carries the inheritance factors (genes): composed of DNA...and a protein (usually histone). A human cell normally contains 46 chromosomes, or 22 homologus pairs and one pair of sex chro-

mosomes; one member of each pair of chromosomes is derived from each parent." (*Dictionary of Medical Terms for the Nonmedical Person,* Second Edition, 1989)

(41) Dr. King and Dr. Shivers gave testimony to the effect that with normal coital sex a pregnancy resulted in only about 25% of the cases; that in noncoital reproduction, such as in vitro, the chances of a pregnancy resulting were somewhat increased and that Mrs. Davis probably had about a 52% of becoming pregnant utilizing all seven cryogenically preserved embryos.

(42) See Plaintiff's Original Complaint, Page 2, Paragraph 8.: "Plaintiff alleges that said fertilized eggs at present constitute property jointly owned by the parties..."

(43) Fungible Things: "Moveable goods which may be estimated and replaced according to weight, measure and number. Things belonging to a class, which do not have to be dealt with in specie..." (*Blacks Law Dictionary,* Second Edition)

(44) See Defendant's Brief filed July 17, 1989.

(45) Conception: "...beginning..." (*Webster's New Collegiate Dictionary,* Second Edition)

(46) *Tennessee Code Annotated* § 20-5-106(b).

(47) *Tennessee Code Annotated* § 39-15-201(c)(1)(2)(3). [The effective date of this statute is November 1, 1989]

(48) In *Smith v Gore,* 728 SW 2nd 738, the Court said: "...nevertheless, 'public policy is the present concept of public welfare or general good.'" [citations omitted]

(49) *Webster v Reproductive Health Services,* Et Al, 109 Supreme Court Reporter 3040 (1989)

(50) The term "viability" has the generally accepted meaning as set-forth in the *Tennessee Wrongful Death Statute,* which definition is set-forth in the text of the Court's Opinion.

(51) *Roe v Wade,* 93 Supreme Court 705 (1973)

(52) *Royal Jewelers Co of Knoxville v Hake,* 205 SW 2nd 963 (1947)

(53) *Cavender v Hewitt,* 239 SW 767 (1922)

(54) *Smith v Gore,* 728 SW 2nd 738 (1987)

(55) *Smith v Gore,* 728 SW 2nd 738 (1987)

(56) *Parens Patriae:* "Father of his country; parent of the country. In

England, the King. In the United States, the State, as a sovereign—referring to the sovereign power of guardianship over persons under disability..." (*Black's Law Dictionary*, 3rd Edition)

(57) *In Re: Baby M,* 525 Atlantic Reporter 2nd 1128 (1987)

(58) *In Re: Baby M,* 525 Atlantic Reporter 2nd 1128 (1987)

(59) *In Re: Baby M,* 525 Atlantic Reporter 2nd 1128 (1987)

(60) *In Re: Baby M,* 525 Atlantic Reporter 2nd 1128 (1987)

(61) *Tennessee Code Annotated* § 36-6-101(a)

THE COURT: For the record, ladies and gentlemen, let the record reflect that prior to these proceedings being placed of record, that the Honorable Martin Palmer, a member of the Maryland Bar, had been introduced to the Court and welcomed, and that Dr. Lejeune, a witness in this case, had been given the oath to testify. Is there any need, gentlemen, to readminister the oath for the record?

MR. CLIFFORD: No, your Honor.

MR. CHRISTENBERRY: No, your Honor.

THE COURT: You may proceed.

The Witness,

JEROME LEJEUNE, M.D.,

having been first duly sworn, testified upon his oath as follows:

DIRECT EXAMINATION

BY MR. CHRISTENBERRY:

Q. Would you state your name for the record, please, sir?

A. My name is Jerome Lejeune.

Q. And to help the court reporter if she doesn't understand the French pronunciation you spell your name, J-E-R-O-M-E, capital L, little e, little j, E-U-N-E?

A. Perfect.

Q. Thank you. Dr. Lejeune, from your accent, I take it that you live elsewhere than East Tennessee?

A. Well, born on the river of the Seine, you know.

Q. And that is probably situated in another country, I hope?

A. It's a little country called France, and the little town is Paris.

Q. Thank you, Doctor. I guess you're a French citizen?

A. I'm French citizen, Parisian born.

Q. And you've traveled to this country, to Maryville Tennessee, to offer what you have as a witness in this trial?

A. Yes.

Q. Okay. Tell us, Doctor, What you do, what your profession is.

A. I am a M.D., that is Doctor in medicine, I'm also a Ph.D., Doctor in science, and after getting my degree in the University of Paris in medicine and also in genetics in the Sorbonne, Faculty of Science, I was research worker for ten years, and then I was appointed professor of fundamental genetics in the Faculty of

Medicine of Paris. My special field is children, all the constitutional diseases of children, and more especially mental retardation.

Q. Okay. Doctor, you practiced medicine, I take it, as maybe a pediatrician?

A. Well, I started as a pediatrician, but I specialized in genetics, and we have the biggest consultation of the world in *l'h'ospilal des Enfants Malades,* Sick Children Hospital in Paris. We have the biggest consultation of the world for children with mental retardation due to congenital diseases due to chromosomal mistakes.

Q. Have you been an educator as a result of your background? Have you been a teacher?

A. Well, I have been professor of fundamental genetics now for twenty years, but I began—my first teaching was not in France, it was in America. I was invited by Professor Beadle in Caltech, California Institute of Technology. It was just before I discovered the first diseases of man first chromosomal diseases in man, but I was already involved in medical genetics, and Beadle invited me to give the first course of human genetics in Caltech. That was long ago. At that time my English was even rougher than it is today, and I came with all my course written in French. In the evening I was translating them with the dictionary, and in the morning I was delivering the course to the students. They were very kind, they helped me very greatly. That is the way I have learned to speak English, and I hope the way they have learned a little about human genetics.

Q. You remember the year that you went to Caltech?

A. Well, it was in '58.

Q. Did you remain there for some time as a professor?

A. I was a visiting professor from the OTAN, professorship from the OTAN; NATO, you say NATO, excuse me.

Q. You have been accredited with helping in human genetics with identification of some chromosome; will you tell us what that is about?

A. It happens that I discovered the first disease due to a chromosomal mistake in man which is Down's Syndrome which was called previously Mongolism because these children have a special odd look which is a little remembering for European some type of the Mongol features. But in Mongolia they don't like to call the disease

Mongolism, they call it European Imbecility.

I discovered that they had one chromosome too much. That was long ago, thirty-two years, if I calculate well, and for that discovery I received the Kennedy Prize from the late president here in United States. And also for that discovery, I got William Allen Memorial Award which is the highest award that you can get in genetics in the world. It's given also in United States.

Q. I see. Have you followed with your genetic discovery even as you sit here today? Have you continued to study?

A. Oh, yes.

Q. Could you probably give us an enlightenment on what's happened over thirty-two years?

A. Well, I want not to speak too much about myself, it's not the subject. But we have discovered ten different diseases due to chromosomal errors, and I would say the first chapters of this enormous pathology was written in French by us. Now, we are dealing with mechanisms of mental retardation due to chromosomal diseases, and we are beginning to understand why having one chromosome too much, that is, normal information but repeated, makes a nuisance for the development of the intellect. And, for example, very recently we demonstrated that in trisomy twenty-one, Down's Syndrome, previously called Mongolism, the cells of the children are more sensitive to some drugs which are used against cancer. It seems totally unrelated, but, in fact, it's defining a new field of research, because very likely this peculiarity is related to a deficiency in a chemical system which is used especially in our neuron, and it's probably one of the main reasons why they do not develop a normal intelligence. So, for the moment, you asked me what we are doing now: We are working on this particular hypothesis because it allows us to make experiments on cells, taken from the children, we cultivate, and we can manipulate, we deprive them, we follow them and we play with them, and we use a lot of drugs to see how they react, and that is the first time we can make experiment in human cells so that to try to cure a neuronal disease, a nervous disease, so it's a very exciting field, but the job is not yet finished.

Q. I trust you can do all that without harming the children?

A. Oh, well, you just take a few drops of blood, and you cultivate the cells, make cultures. We play with the cell; we do not play with

the child.

Q. Thank you, Doctor. I understand you're on the boards of various academies in this world. Could you tell us about that?

A. I have the honor of being a member of the American Academy of Arts and Science, I'm member of the Royal Society of Medicine in London. Royal Society of Science in Stockholm, of the Science Academy in Italy, in Argentina. I'm a member of the Pontifical Academy of Science, and I'm a member in Paris in the Institut de France of the Academie des Sciences Morales et Politiques, that is, of Moral and Political Sciences, a special academy in France; and also the Academy of Medicine in France.

Q. The Academy that deals with moral and political sciences—

A. Yeah.

Q. Tell us what that academy's function is about, doctor.

A. That academy was made around two hundred years ago to give advice to the government about moral and political questions, and essentially to give advice to the government about the use of new techniques, considering that the respect of man is one of the bases of our constitution. We have five academies in the Institute de France, it's one of them.

Q. And then you mentioned another that gave me some interest. You said the Pontifical Academy, where is that academy located?

A. The Pontifical Academy of Science is located inside the gardens of the Vatican, a very nice location. We are seventy members and no more than seven of any country. so that we're coming from all the world around. Our percentage of Nobel Prize is more than sixty percent. There is no difficulty because we choose the members in the whole earth, and so it's not difficult to choose good ones. The interest is many of them have been selected by another committee long after they had been elected by our academy. I would say it's the only scientific international academy of science, the only one which is truly international.

Q. How long have you been on that academy?

A. Twelve years if I remember well, something like that.

Q. Tell us a little bit about the topics or research that is done there. What have you all considered?

A. In the academy?

Q. Yes, sir.

A. Well, for example, we are given the question: What is danger of the use of atomic energy? For example, we had four sessions about the danger of atomic weapons and their numbers, the use of them, the possibility of survival of humanity after an atomic war and how medicine could do something. And when we did the report, the Holy Fathers asked the academy to designate members to produce that report to the powers who head the atomic power. It was sent to in Moscow, to the late Mr. Brezhnev. This was a very interesting interview during one hour discussing with Mr. Brezhnev in the Kremlin about the danger that humanity would feel if there was an atomic exchange.

Q. Did you find that interview interesting to say the least with Mr. Brezhnev?

A. I'm not a diplomat, I'm just a scientist, and it was very interesting for me, at least.

Q. I understand that in this country, you're familiar with our man that is in charge of our health and welfare of all the citizens of this state?

A. C. Everett Koop, yes, we are good friends. I know him since long.

Q. How long have you known him now?

A. I'm not good at counting the number of years, I know people—maybe fifteen years, something of that kind.

Q. Do you visit with him and speak with him?

A. Yes.

Q Does he call your bureau or your agency or your scientific—on the phone in Paris?

A. No, we have discussions when we meet together. We don't use phone for very important matter. It's better to have a chat.

Q What are his interests in you? In other words, what areas have you all chatted about?

A. Human genetics, which is my field.

MR. CHRISTENBERRY: I believe at this time, your Honor, I would ask the Court to recognize Dr. Lejeune as an expert witness in the field in which he's here to testify.

THE COURT: Any objection?

MR. CLIFFORD: Your Honor, we certainly recognize Dr. Lejeune's expertise in the field of genetics.

THE COURT: All right, he's qualified.

MR. CHRISTENBERRY: Thank you, your Honor.

BY MR. CHRISTENBERRY:

Q. Dr. Lejeune, as you sit here today, it's fair to say you have come quite a distance, is it not, sir?

A. Pardon?

Q. It's fair to say you have come quite a distance to testify today, is it not?

A. Well, it's not that far, you know. I have been farther than that.

Q. You're familiar with the issues, the profound issues this Court is considering, aren't you, Doctor?

A. Yeah, and that is the reason why I accepted to come.

Q. Thank you. With respect to the issues in this case. You understand the what we would say is the factual understanding of how Mr. Davis feels and how Mrs. Davis feels. There has been some publicity about this, has there not, Doctor? You have heard something about their dilemma?

A. I heard something, but very little. I must be very honest, I don't look at television, I don't listen to the radio, and I only knew when Mr. Palmer telephoned to me, that was the first time I heard about it. So I would not say I'm really knowing the whereabouts, no. I know there are babies, there are human beings in the fridge, this is the only thing I know.

Q. Thank you, Doctor. So let's start with that aspect of this case. You're familiar with in vitro fertilization?

A. Yes.

Q. When did you write your first article about it, if you recall?

A. Oh, you are terrible with dates; I'm not good with the answers. It must be fifteen years ago, something.

Q. Okay.

A. Before it was used.

Q. Before it was used. So before it was used it had been conceived in man's mind, had it not?

A. Well, you have to understand that artificial fertilization is something rather old in biology, and it was used for animals long before it was applied to man. And what seems today extraordinary, that is freezing a human embryo, it was not extraordinary for a cow. There is a lot of time that cows have been frozen and used and sent

by air mail in little containers. And the novelty is to consider that the technique which was devised for husbandry was good enough for mankind.

Q. Tell us about in vitro fertilization and your view of it and your perspective that you could offer today.

A. Well, could I speak more about nature—

Q. Yes.

A. —of the human being, than specifically the condition in vitro, because to understand what means the fertilization in vitro, we have to understand what means fertilization at the beginning of a human being.

Q. All right.

A. And if I can say so, I would say that life has a very long history, but each of us has a unique beginning, the moment of conception. We know and all the genetics and all the zoology are there to tell us that there is a link between the parents and the children. And this link is made of a long molecule that we can dissect the DNA molecule which is transmitting information from parents to children through generations and generations. As soon as the program is written on the DNA, there are twenty-three different pieces of program carried by the spermatozoa and there are twenty-three different homologous pieces carried by the ovum. As soon as the twenty-three chromosomes carried by the sperm encounter the twenty-three chromosomes carried by the ovum, the whole information necessary and sufficient to spell out all the characteristics of the new being is gathered.

Q. Is what, sir?

A. Gathered.

Q. Gathered.

A. Gathered. And it's very interesting, if I can say, your Honor, to remark that natural sciences and science of the law, in fact, speak the same language. In that sense that when we see somebody healthy, well built, we say he has a robust constitution, and when we see a country in which every subject is protected by the law, we say it has an equitable constitution. In the phenomenon of the writing a law, you have to spell out every term of the law before it can be considered to be a law, I mean in the science of the law. And secondarily, this information written in the law has to be enacted, and it cannot be

before it has been voted for.

Now, life does exactly the same thing. Inside the chromosomes is written the program and all the definitions. In fact, chromosomes are, so to speak, the table of the law of life. If you get the right number of your table of the law of your life, then you begin your own life. Now, the voting process does exist as well. It is the fertilization itself, because there are a lot of proposals, many, many sperms. Only one got in; that is the voting process which enact the new constitution of a man. And exactly as would say a lawyer, once a constitution exists in a country, you can speak about it in the same way, when this information carried by the sperm and by the ovum has encountered each other, then a new human being is defined because its own personal and human constitution is entirely spelled out.

There exists a lot of minute differences in the message given by father and the one given by mother, even by the same person; we do not give exactly the same minute information in each sperm or in each egg. It follows that the voting process of the fertilization produces a personal constitution which is entirely typical of this very one human being which has never occurred before and will never occur again. It's an entire novelty. That was sure—that was known for let's say not a hundred years but more than fifty years. But the bewildering was the minuteness of the writing of those tables of the law.

You have to figure out what is a DNA molecule. I would say it's a long thread of one meter (sic) of length, cut in twenty-three pieces. Each piece is coiled on itself very tightly to make spiral of spiral of spiral so that finally it looks like a little rod that we can see under the microscope that we call a chromosome. And there are twenty-three of them carried by father, twenty-three of them carried by mother. I said the minuteness of the language is bewildering because if I was bringing here in the Court all the one meter long DNA of the sperms and all the meter long of the ovums which will make every one of the five billions of human beings that will replace ourselves in this planet, this amount of matter would be roughly two aspirin tablets. That tells us that nature to carry the information from father to children, from mother to children, from generation to generation has used the smallest possible language. And it is very necessary because life is taking advantage of the movement of the particles, of

molecules, to put order inside the chance development of random movement of particles, so that chance is now transformed according to the necessity of the new being.

All the information being written they have to be written in the smallest language possible so that they can dictate how to manipulate particle by particle, atom by atom, molecule by molecule. We have to be with life at the real cross between matter, energy and information.

Now, I would like, your Honor, to give you an impression of what happens normally. Most of the human beings have been conceived before the fertilization in vitro was used, and most of the humanity will still be made the old good days' fashion for a long time I do hope. Normally, when the ovum is ripe, that is, once a month, fifteen days after the menses, there is a rupture of the follicle, and the ovum is so to speak taken by the fallopian tube, which has a special expansion—we call it *le pavillon*—I don't know the name in English. And it can move, and if you take a picture it looks like as a hand making a slow palpation of the ovary to find where the egg will be laid and to take it.

Normally, the egg is a big cell, round, not mobile, floating quietly inside the fluid in the tube, and the tube will manage to carry this big cell towards the uterus by ciliate movements. On the contrary, the sperm is an indefatigable navigator. It has been deposited in the entry of the genitalia of the mother, and normally it goes up through the cervix of the uterus, he swims during the whole uterine cavity, and it is inside the fallopian tube that the encounter between few thousands, ten thousands, hundred thousands of sperm and the one egg can occur. And it is because every human being has been conceived in nature inside the little tube, a tube of flesh that we call the *fallopian* tube, that test tube babies are indeed possible. The only difference is that sperm and egg are meeting inside a tube which is now a tube of glass because the egg has been removed from the body of the woman, and the sperm has been just added to the little vessel. And it's because normal fecundation I should say fertilization in English—normal fertilization is occurring inside a tube that if you put the proper medium... It is not at all the inseminator who makes fertilization, he just puts on the right medium, a ripe ovum, active sperm, and it is the sperm who made the fertilization. Man would be unable to make a fertilization. It has to be done directly by the cells.

And it's because they were normally floating in the fluid that this extracorporeal technique is at all possible.

Now, the reproduction process is a very impressive phenomenon in the sense that what is reproduced is never the matter, but it is information. For example, when you want to reproduce a statue, you can make a mold and there will be an exact contiguity between the atoms of the original statue and the atoms of the mold. During the molding process there will be again between the plaster and the mold contact atom by atom so that you reproduce the statue. But what is reproduced is not the original because you can make it out of plaster, out of bronze, about anything. What is reproduced is the form that the genius of the sculptor had imprinted in the matter The same thing is true for any reproduction whether it is by radio, by television, by photography, what is printed or reproduced is the information and not the matter. The matter is a support of the information. And that explain to us how life is at all possible, because it would be impossible to reproduce matter. Matter is not living, matter cannot live at all. Matter is matter. What is reproduced and transmitted, it's an information which will animate matter. Then there is nothing like living matter, what exist is animated matter. And what we learn in genetics is to know what does animate the matter, to force the matter to take the form of a human being.

To give you an idea, I would take a very simple example, I would take the example of this little apparatus here, a recorder.

Q. Yes, sir.

A. Now, chromosomes are a long thread of DNA in which information is written. They are coiled very tightly on the chromosomes, and, in fact, a chromosome is very comparable to a minicassette, in which a symphony is written, the symphony of life Now, exactly as if you go and buy a cartridge on which the *Kleine Naehtmusik* from Mozart has been registered, if you put it in a normal recorder, the musician would not be reproduced, the notes of music will not be reproduced, they are not there; what would be reproduced is the movement of air which transmits to you the genius of Mozart. It's exactly the same way that life is played. On the tiny minicassettes which are our chromosomes are written various parts of the opus which is for human symphony, and as soon as all the information necessary and sufficient to spell out the whole symphony,

this symphony plays itself, that is, a new man is beginning his career.

In vitro fertilization does not change at all what I have said. It's just a technique sometime used to bypass a difficulty in the encounter of the egg and the sperm, so it's a—it's a derivation. It does not change at all the basic mechanism, the basic mechanism is just the same.

Now, if I could continue a little more, it's not about fertilization that we are discussing. It's about freezing of embryos. I'm not a specialist at freezing embryos. Your Honor, I have never played with embryos. But in my laboratory we are freezing cells, we are thawing them, we are using a lot of those process, so we know about it, we use it on another system than embryos, but all cells are very similar in their reactions. Now, you have to realize—I don't know if it is true in English, but I think it's quite true, and it is true at least in all the Latin language, we use the same word to define the tempo that we measure with a clock and the temperature that we measure with a thermometer. We say in French *temps* and *temperature;* in English you say time which is a change of tempo, which a temporal thing, and temperature. And that is not a mistake of the ordinary language; it's a definition of the basic phenomenon. I don't know how they have recognized it so long ago to build it into the language. What means "time" is the flux of the agitation of the molecule, the flux of the particle which is continually going on. And temperature is just a measure of the speed with which the molecules are running in a given medium.

Now, if you diminish progressively temperature, you diminish the speed and the number of collisions between the molecules, and so to speak without any joke about the words, you are progressively slowing down, slowing down the temperature, you are freezing time. And, in fact, we are wrong telling that we are freezing embryos. In a sense it's very true like you deep freeze the meat in the supermarket, very correct. But in the fundamental sense what we are doing by lowering down the temperature is stopping not totally but very deeply the movements of the atoms and molecule so. In fact, inside the can, the thermal can in which we put in tiny canisters the cells or the embryos, we have more or less arrested the flux of the time. This seems to be rhetorical, but it is not because otherwise we could never understood why it is possible to freeze a cell, to have it entirely not

moving, not respirating, not having any chemical exchange, and just if you have done it with precision (so that no crystals have been made inside the cells which could have ruptured its very minute architecture), if you thaw it, thaw it progressively and carefully, it will again begin to flourish and to divide. Then it's obviously sure that we have not arrested life and started life again. What we have arrested is the time for this particular organism which is inside this can.

If we could put a cell down to the minus two hundred seventy-three centigrade, that is, to the absolute zero, every movement would be stopped. And if the temperature would be maintained at that level, it would be kept unchanged for indefinity. I would not say eternity but indefinity. We are not achieving that when we freeze a cell in my laboratory (and you do the same here); we use not liquid hydrogen because it's very costly and very explosive, and it's used only in NASA for the rockets. We use mostly liquid nitrogen because it cannot explode, and it's rather cheap, and it's easy to manage. But it's only minus a hundred ninety degrees that we have inside the cannister. Well, it's rather cool, but it's not absolute zero, so the preservation is not a hundred percent.

And probably you could not preserve the cells for more than a number of years, that nobody knows because it depends on the cells. For example, to the best of my knowledge for ordinary cells which are very resistant, they are examples of more than fifteen years in the cannister and being thawed and being correctly surviving and alive. For mouse embryo it's some ten years. In our species I think there are no long time, maybe one or two years, no more than that. And nobody knows with the actual technique how long the preservation would be real preservation. It's a question I could not answer, and I think nobody can answer precisely today.

But what I could say, that the information which is inside this first cell obviously tell to this cell all the tricks of the trade to build herself as the individual, this cell is already. I mean it's not a definition to build a theoretical man, but to build that particular human person we will call later Margaret or Paul or Peter, it's already there, but it's so small that we cannot see it. It's by induction that we know it for the moment. And I would say I would like to use the felicitous expression of the mathematicians. They would say that man is reduced at its simplest expression like you can do with an algebraic

formula if you manipulate it intelligently. If you want to know what mean that formula you have to expand it to give value to the various parameters, and to put in use a formula, you expand it. It's what is life, the formula is there; if you allow this formula to be expanded by itself, just giving shelter and nurture, then you have the development of the full person.

Now, I know that there has been recent discussion of vocabulary, and I was very surprised two years ago that some of our British colleagues invented the term of preembryo. That does not exist, it has never existed. I was curious, and I went to the encyclopedia, to the French encyclopedia, the one I inherited from my great father so it was fifty years ago it was printed.

And at the term of embryo it was said: "The youngest form of a being," which is very clear and simple definition, and it stated: "It starts as one fertilized cell, (fertilized egg which is called also zygote), and when the zygote splits in two cells, it is called a two-cell embryo. When it split in four it is called a four-cell embryo." Then it's very interesting because this terminology was accepted the world over for more than fifty years by all the specialists of the world, and we had no need at all of a sub-class which would be called a preembryo, because there is nothing before the embryo. Before an embryo there is a sperm and an egg, and that is it. And the sperm and an egg cannot be a preembryo because you cannot tell what embryo it will be, because you don't know what the sperm will go in what an egg, but once it is made, you have got a zygote and when it divides it's an embryo and that's it.

I think it's important because people would believe that a preembryo does not have the same significance that an embryo. And in fact, on the contrary, a first cell knows more and is more specialized, if I could say, than any cell which is later in our organism.

Now, I don't know if I can abuse of your patience, your Honor?

THE COURT: You're doing fine.

THE WITNESS: The very young human being, just after fertilization, after it has split in two cells and then in three cells because curiously we do not split ourselves in two, four, eight and continue like that, no, at the beginning we don't do that. We split in two cells of roughly equal dimension and one of the two cells splits in two. There is a moment in which inside the zona pellucida which is a kind of

plastic bag, which is, so to speak, the wall of the private life of the embryo in which it is protected from the outside, we have a stage in which there are three cells. This has been known for fifty, sixty years, and it was remaining a mystery for embryology, because after that stage of three cells, it starts again, it comes to four, and it continue by multiples of two.

What could be the meaning? We do not know yet the accurate meaning, but it is of great importance about the discussion we have today because we can manipulate non-human embryos like, for example, mices. We can disassemble the cells which are inside the zona pellucida of a sixteen cell embryo of mice and take few cells of it, take few cells from another embryo, of another type of embryo, if you wish, and put all that together inside a new zona pellucida from which you have expelled the legitimate occupant. Now, what happens? Most of the time it fails, but sometimes a chimera comes out. For example, if you have chosen a black embryo, a white embryo and you have mixed them together, you find a little tiny mouse which can run on your table but which has a chessboard on the body. Parts are black, parts are white because she has built herself of two type of cells that you had put together in the same zona pellucida. It has to be done with a very small number of cells.

We have tried, and when I say we, I should say geneticists, have tried to put three different lines, and they have got few mice with three different type of cells that they can see on the fur. They have tried four, does not work; five, does not work. It's only possible with three cells. And that remembers that when we split at the beginning of our life (two cells and then one cell in two), we go at a three cell stage. It's probably at that time that a message goes from one cell to the two other cells, come back to the first one and suddenly realize we are not a population of cells. We are bound to be an individual. That is individualization, that makes the difference between a population of cells which is just a tissue culture and an individual which will build himself according to his own rule, is demonstrated at the three cell stage, that is very soon after fertilization has occurred.

If we stop the process, if we slow down the movement of the molecules, we progressively come to a relative standstill, and when the embryo is frozen, these tiny human beings, they are very small, one millimeter and a half of a dimension, a sphere a millimeter and a

half, you can put them in cannisters by the thousands. And then with the due connotation, the fact of putting inside a very chilly space, tiny human beings who are deprived of any liberty, of any movement, even they are deprived of time, (time is frozen for them), make them surviving, so to speak, in a suspended time, in a concentration can. It's not as hospitable and prepared to life as would be the secret temple which is inside the female body that is a womb which is by far much better equipped physiologically, chemically, and I would say intellectually than our best laboratories for the development of a new human being.

That is the reason why thinking about those things, I was deeply moved when you phoned to me, knowing that Madame, the mother, wanted to rescue babies from this concentration can. And to give to the baby—I would not use term baby, it is not perfectly accurate, not good English—would offer to those early human beings, her own flesh, the hospitality that she is the best in the world to give them. And because Mr. Palmer told me on the phone that it had been said that if you, Madame, were not entitled to give this shelter to the baby—to the early human beings, (being perfectly correct in what I mean)—you would prefer that they would be enjoying another shelter and not being left inside the concentration can, or destroyed. And I was impressed because it remembered me of an extraordinary trial which has occurred more than three thousand years ago, and I could not believe it could occur again, that two persons will discuss whether it's better to have an early human being alive and given to a certain person or another person would prefer the baby not being alive at all. And to the best of my recollection this judgment has been considered as a paragon of justice when Solomon did it. I was not thinking I would come from Paris to speak in Tennessee about a three thousand years old trial. But I realized when you phoned to me, it was the first time it was arising in this earth with a very early human being, because before early human beings were not in our reach, they were protected inside the secret temple. And then I felt it was opportunity that a geneticist was going to tell you what our own science tells us.

If this trial had taken place two years before, I would have stopped because I would have told you all that we knew at that moment. But with your permission, your Honor, I will continue a little further, faster and faster.

THE COURT: Yes.

THE WITNESS: We know much more, since the last two years. we know that the uniqueness of the early human being I was talking at the beginning, which was a statistical certainty (but an inference of all we knew about the frequency of the genes, about the difference between individuals) is now an experimentally demonstrated fact. That has been discovered less than two years ago by Jeffreys in England, the remarkable manipulator of DNA. And Jeffreys invented that he could select a little piece of DNA, of which he could manufacture a lot of it, which is specific of some message in our chromosomes. It is repeated a lot of times in many different chromosomes and which is probably a regulation system. Some indication to do something or do another thing, but not a kitchen recipe, but a precision about what to do.

And because it's only telling the cells that this should work and this should not work, it can assume a lot of tiny change, so that there are so many of those little genes and there are so many little changes in them that we receive from father and from mother an array of those genes that we can realize very simply, you get the DNA, you put it in solution and you have it spread in a special medium. Then you put this special probe made by Jefferys, and what you see it looks exactly like the bar code that you have probably seen in the supermarket, that is, small lines of different breadth and different distance from each other. If you put that bar code and you read it with an electronic device, it tells the computer what the price of the object and tells a lot of other things.

Well, it's exactly what it tells us that when we look at the DNA bar code, and we detect every individual is different from the next one by its own bar code. And that is not any longer a demonstration by statistical reasoning. So many investigations have been made that we know now that looking at the bar code with his Jeffreys system, the probability that you will find it identical in another person is less than one in a billion. So it's not any longer a theory that each of us is unique. It's now a demonstration as simple as a bar code in the supermarket. It does not tell you the price of human life, it has a difference with supermarket.

The second advance has been that we know now that in one cell we can detect its originality. That has been due to the discovery of a

new system which is called PCR, which is becoming extraordinary popular. It started two years ago. You can take a tiny piece of DNA, one molecule taken from one cell, you see how little this is, you can with that technique reproduce it by billions, and when you have enough you can make the analysis of Jeffreys and see again that we have the whole demonstration of uniqueness, not only in a sample taken from the individual. but in one cell, in one nucleus of one individual.

Another is a third discovery which is by far the most important of all, which is that DNA is not as dull as the magnetic tape I was talking before. Nature is imitated by our discoveries, but she has known much more than we have yet discovered. In that sense, that the message written on DNA is written by change of the various bases which come one after the other in that one meter long molecule. But now it happens that twenty years ago it was described with certainty that some of the bases of DNA were carrying an extra little piece we call a methyl, (which is CH3) which is just hooked on it and change a little of the form of one of the bars of this long scale which is the DNA molecule. Nobody understood what it was meaning. And it's only four years ago (especially by the discovery of Surani) that we have begun to understand that we were up to something extraordinary, which is that those tiny little bits of methyl which are put on the base, cytosine, which is transformed in methyl—cytosine—I'm sorry to be technical, your Honor, but I cannot translate it, it's chemical slang.

THE COURT: I understand.

THE WITNESS: Is exactly comparable to what does an intelligent reader when he wants with a pen to underline, to highlight some passage or to scratch, delete another sentence. That is with the methylation, one gene which is still there is knocked out, put to silence, but if it is demethylated on the next division, on the next cell, then it will speak again.

Now, the basic discovery was that this is possible because this tiny change on the DNA, changes the surface of the big groove of the helix of DNA. It is inside this big groove that some molecules, some proteins will hook on different segments specific of the DNA. It is a kind of language telling to the chromosome: You have to tell this information or for this information, shut up, do not speak this one for

the moment. It's very necessary, because there is so many information in our cells that if they were expressing everything, every time, to have the energy spent by one cell would be much more than the energy of our whole body. So it's necessary that we have some silent gene and some gene giving expression, expressed.

Now, the basic discovery is the following, and it is directly related to our discussion: That the DNA carried by the sperm is not underlined (or crossed) by this methylation on the same places which are not equivalent in the DNA chromosomes carried by ovum. During the manufacture of the sperm there are indications, it's penciled, so to speak. It's underlined, you should do that. But on the equivalent gene, on the equivalent chromosome manufactured by the mother, the underline is in a different place, and it underlines something different. So that at the moment the two sets of chromosomes carried by the sperms and the egg are put together, they are not as we believed for years identical. We knew there was a difference with the "X" and "Y" chromosomes, but for the others they were believed to carry the same information; that is not true. Some information is to be read on as coming from the male chromosome, and another information from a chromosome coming from the mother. Now, the reason is that the fertilized egg is the most specialized cell under the sun because it has a special indication underlining segments of DNA which shall be expressed and others that shall not be expressed that no other cell will ever have in the life of this individual. When it's split in two we know that exchange of information comes from one cell to the other one. When it's split in three it receives information we are an individual. And when it continues progressively, the underlining system is progressively changed so that cells do differentiate, and cells become specialized doing a nail, doing hair, doing skin, doing neurons, doing everything.

And the very thing is that during this process, the expansion of the primary formula which is written in the early human being, nothing is learned but progressively a lot of things are forgotten. The first cell knew more than the three cell stage, and the three cell stage knew more than the morula, than the gastrula, than the primitive streak, and the primitive nervous system. In the beginning it was written really not only what is the genetic message we can read in every cell, but it was written the way it should be read from one

sequence to another one. Exactly like in the program of a computer, you don't put only the equivalent of the Algebraic formula, but you tell to the computer do that; if you get that result, then go at that and continue that program; or if you don't get the result, continue and go to the other program. That is written in the first cell; is progressively forgotten in the other cells of our body.

At the end of the process when the organism has grown up, it produce then its own reproductive cells, it puts the counter to zero again, and hence the rejuvenation. A new life will begin when a female and a male cell will encounter to produce the next generation. So I would say very precisely, your Honor, that two years ago I would not have been able to give you this very simple but extremely valuable information which we have now, beyond any doubt.

I would give you an example of why it's not theoretical. We can manipulate with mice—not me, but my colleagues. And with mice they have been able to make pseudo zygote, that is, to take one egg, expel its own legitimate nucleus and put, for example, two nuclei coming from sperm, so they have diploid cell, a diploid zygote containing only two sets of paternal origin; it fails to grow. They have tried to do it with two maternal original nuclei, that is, two maternal chromosomal cells and no paternal cells. It's diploid; by the old theory it should grow, but it does not. But curiously both of them do something; they don't build a full imago, that is, the whole form. But they specialize. If there is only male nuclei, two male nuclei making what is called an androgenote, it produce little cysts which are looking like the membranes and placenta that the child is normally building around himself to make its space and time capsule so that it could take the fluid from the mother vessels. An early zygote containing only male chromosome does only that.

If a zygote contains only chromosomes from female origin, it makes the spare parts. It makes pieces of skin, it makes piece of teeth, it can make a little nail, but all that in a full disorder, not at all constructed it makes the spare parts. We know this directly by experiment in mice done by Surani last year. But we knew that but we could not understood it before.

We knew that already in man, because in man we know that there are what is called dermoid cysts which is a division of a non-fertilized egg inside the ovary of a virgin girl. It cannot grow. It's rare,

but it is well known. It will never give a little baby, but it makes the spare parts, teeth, nails, all that mixed in incomprehensible disorder. On the reverse we knew that sometime after apparently normal fertilization the product does not divide correctly but makes cysts, little balls again and again and again, and it's called a mole, hydatidiformis mole, and it's very dangerous because it can give the cancer to the pregnant woman.

Now, we have discovered—(not me), you have to know I'm professor and when I say we, it's all the professors of the world, it's not me. We have discovered that in those hydatidiformis moles, there were only paternal chromosomes. There were two sets of paternal chromosomes and the maternal pronuclei had died, we don't know why. So we know by the mice experiments that it is related to methylation of the DNA.

Hence, we know by the human observation, that there is a specialization of information carried by the sperm compared to the information carried by the ovum. And I would say I was wondering, not surprised, but wondering that we were discovering at this extraordinarily tiny level of information built into the chromosomes, that paternal duty was to build the shelter and to make the gathering of the food, to build the hut and the hunting. And that the maternal trick was household and building of the spare parts so the individual can build himself. And it's a kind of admiration that we have for nature that since we have seen in the grown up that the man is going hunting and the mother is doing the kitchen, it is just the same deeply written inside our own chromosomes at the very beginning at the moments the first human constitution is spelled out.

Well, I have abused your kindness, your Honor. I have spoken maybe too much, but I would say to finish that there is no, no difficulty to understand that at the very beginning of life, the genetic information and the molecular structure of the egg, the spirit and the matter, the soul and the body must be that tightly intricated because it's a beginning of the new marvel that we call a human.

It's very remarkable for the geneticist that we use the same word to define an idea coming into our mind and a new human coming into life. We use only one word: Conception. We conceive an idea, we conceive a baby. And genetics tell us you are not wrong using the same word; because what is conception? It's really giving information

written in the matter so that this matter is now not any longer matter but is a new man.

When we come back to the early human beings in the concentration can, I think we have now the proof that there are not spare parts in which we could take at random, they are not experimental material that we could throw away after using it, they are not commodities we could freeze and defreeze at our own will, they are not property that we could exchange against anything. And if I understand well the present case and if I can say a word as geneticist, I would say: An early human being inside this suspended time which is the can cannot be the property of anybody because it's the only one in the world to have the property of building himself. And I would say that science has a very simple conception of man; as soon as he has been conceived. A man is a man.

THE COURT: Before we go further, let's take a break, a very brief break, actually a little longer one than we usually do. As most of the representatives of the media know, there is some hospitality being furnished you by the Blount County Chamber of Commerce. I want you to have an opportunity to enjoy that if you care to, so we will stand in recess about twenty-five or thirty minutes at which time our testimony will resume.

Parties may excuse themselves and Dr. Lejeune you may come down.

(Parties and counsel leave the courtroom.)

THE COURT: Ladies and gentlemen. we'll stand in recess.

(Brief recess.)

THE COURT: Dr. Lejeune, if you would come around and take the witness stand. Mr. Christenberry.

MR. CHRISTENBERRY: Thank you, your Honor.

BY MR. CHRISTENBERRY:

Q. Dr. Lejeune, suppose that—as a hypothetical question, but suppose that we had heard testimony in this hearing that indicated that each mom and each dad contribute identically the same to the embryo, and that there is no differentiation between their contributions, could you tell us what your opinion is about whether or not cells are differentiated?

A. It's difficult to answer that because once you know something in science, it's very difficult to tell what you would think if you were

not knowing it. If the paternal and maternal chromosomal share of the baby was the same, we wouldn't have any idea how this differentiation of cells do occur, so if I had testified two years ago, I would have said that the mystery of cell differentiation was complete, and we did not know where it was written. Now we begin to know where it's written. It's the only difference, but it's a great difference that we begin to know. It tells us definitely that what was an implication that it must be written in the first cell, (this type of differentiation must occur at this time and at the other time another differentiation should occur). We knew it should have been written, but we did not know at all how it was.

Q. Okay. And so you testified at great length about the differentiation.

A. Yeah.

Q. And you did that for what purpose?

A. For the purpose of understanding how from an apparently undifferentiated cell which is the one cell of the fertilized zygote, the full imago can emerge. If science cannot say anything about the mechanism of it, it just remains a pure constitution but no knowledge about it. It's the reason why I wanted to put on record those new findings about the methylation of DNA, because it proved that the implication which was as all of genetics, that differentiation is, so to speak, prewritten in the first cell, is now having an understandable physical support. Now, it cannot be said that the first cell is a non-differentiated cell. It must be said now the first cell is knowing how to differentiate the progeny, the cell progeny.

Q. Okay. And for me to understand

A. To make it clearer, if I am looking at the mass of cell growing, I know by my own experience in my lab for twenty years that never a baby will form itself in our bottles because we are growing cells taken from the body. On the contrary we know that if the cell which is dividing is a fertilized zygote, a new individual is just now beginning to emerge.

Q. What ethical considerations do you have about freezing?

A. I think love is the contrary of chilly. Love is warmth, and life needs good temperature. So I would consider that the best we can do for early human beings is to have them in their normal shelter, not in the fridge. The fridge is not a second choice, I would say it's a third

choice. And typically I would not be surprised that in a few years from now, this long way outside the female body which is artificial insemination and this long stay in concentration can will be considered as not very efficient. It will be much better to make graft of the tubes to repair the difficulty of the tubal incapacity, or to use antibiotics—new antibiotics to prevent special difficulty with the mucosa of the tubes, or find chemicals which will help find why certain couples, although they have normal production of cells, cannot manage to get fertilization, or to get implantation. It's surely some chemical thing which is not yet discovered which will be the real solution. Then I would consider that the extracorporeal fertilization, it's, so to speak, an emergency proposal of medicine on the present stage of medicine, but it's not good treatment. The good treatment is yet to be found in each of the cases. It's not the final answer, so to speak, not at all. That is my feeling, but it's a feeling.

Q. One moment, please, Doctor, I would ask you this question, and I'm going to read it to you so I'll understand how to ask it. It has been stated that once you get to blastomeres and they are unequal in size, that nobody knows for sure why division of these cells might be equal in some conditions and unequal in other conditions. Do we now know why the unequal and equal nature exists?

A. That is a very difficult question. We know that normally, as I said, the stage of three cells is due to inequal division of the first blastomeres, and that seems to be the basic normal phenomenon. But why nature do that it's still to be discovered, but it seem to be, the starting phenomenon. Then I would say that obviously there must be something written in the egg, telling the egg you split in two, then one of the cells split in two, then you can discuss together all three to know what to do, the three cells together. It's not a surprise, it's an obvious phenomenon known for a long time it was not explained at all, which has now found explanation. We know that in any typical chimera, made from different embryos, only three line of cells can manage to build an imago together. That means that the individualization is at the three cell stage.

Q. Within your knowledge, Doctor, can you tell us what we know and what we can tell about these human beings from three cells forward? What knowledge do we gain and at what rate do we gain it? Do you understand my question?

A. No.

Q. Okay. We have heard testimony that at three weeks you have got this, the nervous system starts at this stage—

A. Yeah.

Q. This starts when and it's been confusing, because we have tried to eliminate—we tried to identify body parts, we're thinking in terms, and you come to us with a different perspective. Can you tell us once again what it is we have and how it progresses in development?

A. Well, from the very beginning we have a embryo. We have first a zygote and a two cell embryo and then a three cell embryo and then a four cell embryo, and then eight, and sixteen, and all the power of two. This embryo, growing progressively, is inside the zona pellucida and suddenly at around six days or seven days it begins to "hatch." The zona pellucida is, in fact, the protection, or privacy, so that if they are twins, for example, they will not mix together because each of them is in its own zona pellucida.

At the moment the embryo begins to hatch and make trophoblast which will anchor itself on the mucosa, there is already so much commitments we cannot see. There is already so much committed to build the individual that it will not mix with a possible twin. Otherwise, in species in which you have a lot of pups in a litter of five, ten, like in kittens or in dog, if they were not protected, each of them at the beginning in their own plastic bag (in their Own zona pellucida), they would not make different animals, they would mix and make a kind of chimera. But when it's so well committed, when all the cells are so well committed to continue to cooperate with each other, then nature has invented that embryo will hatch and rupture the zona pellucida and begin to anchor on the uterus.

The second step, we can describe around twelve days after fertilization that is the very beginning of the little line which cells begin to draw on the embryo; this little line will progressively become a kind of *gouttiere*—I don't know the word in English—and finally will close itself in a tube, and it will be the beginning of the neural tube.

Then well, let's say, what I should say more? I will describe the whole development of the imago, let's say at three weeks, the cardiac tubes will begin to beat, so that the heart is beginning to beat three weeks after fertilization. And progressively you will reach the end of

the embryonic period at two months after fertilization. At that moment the little fellow will be just size of my thumb. And it's because of that that all the mothers telling fairy tales to the children are speaking about Tom Thumb story because it's true story. Therefore, each of us has been a Tom Thumb in the womb of the mother and women have always known that there was a kind of underground country, a kind of vaulted shelter, with a kind of red light and curious noise in which very tiny humans were having a very curious and marvelous life. That is the story of Tom Thumb.

Well, after Tom Thumb is visible, that is, two months of age, it has two centimeters and a half from the crown to the rump, and if I had it—if I had him on my fist, you would not see that I have something, but if I was Opening my hand you would see the tiny man with hands, with fingers, with toes. Everything is there, the brain is there and will continue to grow.

It's from that moment which is two months after fertilization, that we don't call any longer human being embryos, we call them fetuses. And that is very true to change the name just because it tell a very plain evidence: Nobody in the world looking for the first time at a Tom Thumb bag looking at an embryo of two months of a chimpanzee, of a gorilla, of an orangutan. or of a man, nobody in the world would make a mistake just looking at him. It's obvious this one is a chimpanzee, this one is an Orangutan, this one is gorilla, this one is a man.

The reason why we change the name, and we call it fetus, it means only something to be carried because the full form is already present. But the man was there before everybody could tell the difference with a chimp. For example, if we were taking one cell—I would not do that because it's dangerous for the being, but if we were taking one cell of a four cell embryo, it would probably survive and compensate. We know it in mouse. Now, let's take one cell of a chimpanzee embryo, of a human embryo, of a gorilla embryo and give it to one of my students in the Certificate of Cytogenetics in Paris, and if he cannot tell you this one is a human being, this one is a chimpanzee being, this one is a gorilla being, he would fail his exam; it's as simple as that.

Q. When you see the development of three cells—

A. Yeah.

Q. And if we used the most intricate computers, let's say, that would be used in our space program, NASA we call it, could those computers be programmed to keep up with what is going on?

A. No, totally not. The amount of information which is inside the zygote, which would if spelled out and put in a computer tell the computer how to calculate what will happen next, this amount of information is that big that nobody can measure it.

I have to explain that very simply. You have the two meters of DNA, one coming from father, one coming from mother, that it means ten to the eleven bits of information, just to spell out what is written on this DNA. If you add the subscript that I was talking about methylation, then it will increase this number by ten to the power four or to the power five. Thus, we will go very soon, just for the DNA, at ten to the fifteen. It's an enormous number. To give you an idea, just to print letter by letter all what it is written in the DNA of a fertilized egg, you would need, writing G, C, T, A, and all the string of symbols, you would need five times the Encyclopedia Brittanica just to spell out the DNA, five times Encyclopedia Brittanica. But nobody could read it. You could fit it into the computer. But now you would have to take care of all the molecules that are inside the cytoplasm which will recognize the message, which will send a message to the next cell. And to spell out this amount of information which is absolutely necessary, (otherwise no life would be possible), I think you would need a thousand, a million times more bits of information. No computer in the world would have a storage enough just to fill the amount of data. Now, to tell to the computer the algorithm to use it, nobody knows how to do it. You have to realize that this enormous information which makes a man is enormous compared to the information which makes a computer, because it's a man who has made the computer; it's not the computer which has made the man.

MR. CHRISTENBERRY: You may ask him. I would like to interject at first if the Court—while it's fresh on the Court's mind, would have any questions of the Doctor. He's used to facing a judge after he's told his side of the story, and sometimes we do that in our system.

THE COURT: I have no questions at this point.

MR. CLIFFORD: Thank you, your Honor.

BY MR. CLIFFORD:

Q. *Bon jour,* Dr. Lejuene

A. *Merci.*

Q. Now that we have exhausted my French, we'll hopefully proceed in English. Let me first thank you very much for being willing to come here to Maryville, Tennessee, to appear in this trial. I believe, in fact, you come at your own expense, is that correct?

A. Uh-huh (affirmative).

Q. Now, please bear with me, Doctor, if you're not familiar with what I may be doing, in France they have civil law and we, as you may know, take our law from the British system, the common law. Please interrupt me if you're not sure where I'm going. Let me ask you this: Have you testified before in an American Court?

A. Yes.

Q. Could you tell me what testimony, what cases you have testified in?

A. Well, in American Court I have testified especially on those questions. It was—I don't remember the Court it was.

Q. Do you remember maybe testifying in 1981 in the state of Maryland?

A. Yeah.

Q. You recall that?

A. Yeah, yeah.

Q. What was that trial about?

A. Well, if I'm well remembering, the trial was about a baby who was inside the womb, a very different case. And if I remember exactly the story because I am not a lawyer, you know, I was not invited giving my opinion about the case, but giving opinion about another question which was whether this baby who could have been, I suppose at that time, some—must have been three months old, was really a human being. It was a very simple question, but it had to be as well answered with the available knowledge at that time.

Q. I believe, Dr. Lejeune, in that case the question was whether or not a woman should be allowed to have an abortion?

A. I think the question was whether the husband should say he did not want the baby to be expelled. That was the question.

Q. And I believe, and correct me, of course, if I'm wrong that in

the proof of that case the child had a chromosomatic, chromosome defect which would likely lead.

A. No, I don't know that. I've not been aware of that, I have not heard about that. It was not said at the trial, no.

Q. In that case you testified, I believe, that in your opinion the fetus in that case was a human being?

A. It was not my opinion. It was the teaching of all the genetics that I was giving. It's no doubt it's a human being because it cannot be a chimpanzee being, so it's a human being.

Q. And you opposed abortion in that case?

A. I dislike to kill my—a member of my kin, no doubt. And beside that I'm a French Doctor, I have sweared the oath of Hippocrates. Hippocrates four hundred years before Christian era made an oath that, "thou shall not give poison, thou shall not procure abortion." It's very interesting for us doctors because at that time in which slavery was the law, at the time in which the father of the family was allowed to kill a baby at birth, or even later, he founded medicine by preventing new doctors to give poison or to give abortion. That was meaning that does not matter what the size of the patient; a patient is a patient. That is Hippocratic oath.

Q. I believe that perhaps the first commandment is first do no harm?

A. Thou shall not kill, yes, I have heard something about that.

Q. Let me understand what your expertise is. You are obviously an expert in genetics.

A. Yes.

Q. Do you recognize the scientific field of embryology? Do you recognize there is a scientific field called embryology?

A. Oh, yes, no doubt.

Q. Do you claim to be an expert in the field of embryology?

A. I claim to be not entirely ignorant.

Q. But do you offer yourself as an expert in the field of embryology?

A. No, I'm not an expert in the field of embryology by itself.

Q. Let me ask you if you are offering yourself as an expert in the field of psychology?

A. In the case of genetics I would have said yes because I have been so much involved in so many cases that I have learned about

human psychology more than I should have in the faculties.

Q. But you, I take it, do not claim to have a degree in the field?

A. No, I have not a degree.

Q. Do you claim to have expertise in computer science?

A. Partly, sir.

Q. Do you claim to have academic credentials in the field of computer science?

A. No, not academy credentials. I have written things which were agreeable to some academicians.

Q. Finally, do you claim any expertise in law?

A. Oh, not. I have some heredity about it, my father was.

Q. You may be more of an expert than you wish you were. But you do not claim any academic training in the law?

A. Oh, no.

Q. Or experience with the law.

A. Experience, yes, a little experience.

Q. Dr. Lejeune, I take it it has been known for quite a considerable length of time that the genetic material that started out in the ovum and the sperm combined, of course, into the zygote?

A. Oh, yes.

Q. How long has that been recognized?

A. It's difficult to tell because fertilization has been discovered by Spallanzani, but he did not know about DNA, he did not know about chromosomes, then it was just the mixing of two cells. It was at the end of the 17th century. You asked me to tell you the whole story of genetics—

Q. No, no.

A. I agree, but it will take a month.

Q. Doctor, I'm asking you approximately how long it has been known by the science of genetics that it was the coming together of genetic material, regardless of whether the precise material was known by its nature or not?

A. I would say more than fifty years, going back to the early nineties.

Q. Early nineteen nineties?

A. Nineteen.

Q. 1920's?

A. Earlier than that. Eighteen, nineteen—I cannot explain.

Q. I think we would agree it's been a long time.

A. A long time. Three generations of students.

Q. And I take it at some point it became understood in the field of genetics, that the genetic code or blueprint for the mature entity was contained obviously in that first cell?

A. As I said it was known by inference, the inference was made, but the demonstration was not there.

Q. Of course, often we refer in science to the concept of a theory.

A. Uh-huh (affirmative.)

Q. A theory being, of course, and you correct me if I'm wrong, a proposed explanation of how a system, in this particular case genetics, works, and then we do experiments to see if our theory holds water or whether it needs to go back into the shop?

A. Yeah. I would say model.

Q. Model, yes. Now, in genetics, I would take it, it has been believed on the theoretical level, all of the genetic material, all of the information as you referred to it was in the zygote, that has been believed theoretically for a very long time?

A. No doubt.

Q. And that what you have described to us at such length today has been the working out of the precise mechanism of how that works?

A. In a sense, yes, but it's a little change that previously it was an inference and now we begin to have a demonstration. For a scientist it makes a lot of difference.

Q. Of course. But if I had come to you, Dr. Lejeune, ten years ago, and I had said, please help me with my genetics, Doctor, do you believe that all of the information that's necessary for the development and maturation of a chicken—

A. Yeah.

Q. Is contained in that zygotic cell we first see in the egg—

A. Yeah.

Q. Would you have told me that you believed that?

A. Well, to be perfectly correct, I would say I believe it; now I would say I know it. That's a small difference.

Q. But I take it it would be true that, again, ten years ago had I asked you this question about the chicken that your level of conviction about all that information being in the zygotic cell would have

been very high?

A. Yes, pretty.

Q. And certainly if in genetics we had discovered that some information was coming into cells from some other source than the genetic material and having an impact, we would have all been stunned, scientific world would have been stunned?

A. Yeah, yeah.

Q. Now then, you described at great length this morning, the precise nature of the development of embryos as far as the mechanics of the genes and chromosomes and information that is passed from each gamete into that zygote, and you, of course, described it as an incredibly complicated procedure?

A. Uh-huh (affirmative).

Q. I take it that your questions, you were answering specifically about human embryos, zygotes, sperm, ova, but I take it that is also true of chimpanzees, gorillas, mice, they are—in those species it's also a very complicated fascinating complex mechanism?

A. Yes, but not exactly the same mechanism.

Q. Certainly. I think I have read somewhere, and I'm sure if I'm not right you'll correct me, that genetically as far as the chromosomes, as far as the contents of the DNA in the chromosomes, for instance, man, Homo sapiens, and the higher mammals, particularly the gorillas, chimpanzees—help me look for that species.

A. Orangutan.

Q. There is a remarkable similarity?

A. Well, it depends what you remark. You can remark the similarity, or you can remark the differences. And difference is incredibly interesting. I don't know where you want to ask me.

Q. Well, I have heard it said or read that approximately ninety-eight percent of the genetic material that is found in a chimpanzee or gorilla is identical to what may be found in a human being.

A. It has been written, and it has been written by statistical calculation of the DNA but not about the meaning of it. Now, what makes ninety percent similarity in the number of words in two different texts? They can mean something very different by the way the sentence are made. It's what makes the difference between the species.

Q. But there is a similarity in the DNA?

A. Oh, yes, exactly like the similarity in the fact they have two hands like us, not the same thumb, but they have hands, we have feet, but they are the most similar to us, no doubt. It's no surprise that the DNA also has some similarity.

Q. But the same basic process that we observe in human beings we also observe in chimpanzees?

A. Oh, yes.

Q. Mice?

A. Mice. I would not go that far but partly.

Q. Mice have zygotes?

A. Oh, yes, I mean—I want to make clear when we speak about basic mechanism we have to know what we mean by basic. For example, I told you the enormous importance of methylation of the DNA we discovered those years. But, for example, Drosophila does not methylate the DNA.

Q. That's the fruit fly?

A. That's the fruit fly but it's a very complex organism. It's makes a differentiation of cells that makes me believe that with methylation we have unveiled one of the tricks used by nature, but there are other tricks we are still using, we men, that were sufficient to build a Drosophila but would not be sufficient to build the human being. I would not agree that basic mechanism are the same in the whole living system. Surely it's much more complicated to build a human being, to determinate on one cell the wiring of his brain so that he will some day invent machine to help his own brain to understand the law of the universe. There is something peculiar to the human beings compared to others, you know. I will tell you one thing, very simple: I'm traveling a lot, and as far as I can I visit two points which are very important for me when I go in a new town: One is the university and other is the zoological garden. In the university I have often seen very grave professors asking themselves whether after all their children when they were very young were not animals, but I have never seen in a zoological garden a congress of chimpanzees asking themselves whether their children when they are grown up will become universitarians. I feel there is a difference somewhere.

Q. Doctor, I forgot to ask you a couple of questions about your expertise, and please pardon me for having to come back, but I take it from your testimony when Mr. Christenberry was asking you

questions that you have not worked in the field of what is called in this country in vitro fertilization?

A. No.

Q. I believe in France there is a different term for that.

A. No, it's called also *fecundation in vitro.*

Q But you have not been involved any in in vitro fertilization clinics?

A. No.

Q You have not been asked to advise in vitro fertilization clinics on matters of genetics or anything else?

A. Not directly, but I have advised a lot of my patients who consider whether they should have or not this type of investigation.

Q I suppose I should ask you this, I understand in vitro fertilization is done in France?

A. Oh, yes.

Q How long has this procedure been carried out in your country?

A. Well, I think Amanda has been six years, now, six years and a half, she was the first test tube baby in Paris. I think she is six years, seven years maybe.

Q Let me see, Dr. Lejeune, if I understand the point you are making this morning. It is your belief as a geneticist, that all the information that is necessary to create a human being, a unique individual human being, we could go in and find in a nucleus of a zygote?

A. No, I never said that. In the zygote I would say, not in the nucleus. You need the nucleus and whole cytoplasm. The zygote cannot be reduced to the magnetic tape. We have also to have the tape recorder working.

Q. We can take if we wished on a perhaps philosophical scientific experiment here, we could take a zygote, look at it, look at the DNA, look at the other structures in that one cell and assuming that we had the knowledge to be able to do it, tell everything about that human being!

A. I would say yes, beside accident, which cannot be predicted, but I would say no machine is big enough to put in it this information, it is purely hypothetical .

Q. Right.

A. It's not practical.

Q We're engaging on a philosophical experiment.

A. To be frank and to give you my belief I'm not sure well be any time able to build a machine big enough to do that job. There is no evidence about that.

Q. Dr. Lejeune, then theoretically—

A. Otherwise this machine would be a fertilized egg itself.

Q But if we had such a machine on our philosophical experiment, we could look into the zygote, and we could tell what color hair this person would have?

A. No doubt.

Q. What color eyes this person could have?

A. Yes.

Q. Could we look into the zygote and, either in the structure or chromosome or DNA, and tell what language the person would speak?

A. I don't believe so, sir, because language is a basic phenomenon built in. We could say, in your example, theoretical example, this being will be able to speak, but he will speak Japanese if he is in Tokyo. But we could say conversely with your same system, looking at a chimpanzee first cell, this being will never speak.

Q. Could we look into the zygote, into the genes of the chromosomes, into the DNA structure and tell whether this individual would like the music of Beethoven?

A. Partly, yes, sir, because we could in your hypothesis be sure that he is perfectly normal, and if he is perfectly normal he would like Beethoven.

Q. Dr. Lejeune, do you intend to investigate to find the defective chromosomes for those who do not like Beethoven?

A. No, no, but you were asking me about normality.

Q. Could we look into the zygote, into the chromosomes, DNA, into the balance of the structure, and tell whether this individual would grow up to be a person of liberal or conservative persuasion?

A. Well, even looking at the grown-up I cannot tell that, sir.

Q. Of course, as you realize, Professor Lejeune, I'm trying to make, I guess, a philosophical point, and that is while some information, a great deal obviously of information is contained in that zygote, that there would obviously be things we could not detect with our philosophical machine about the individual when he or she was

twenty, forty or sixty?

A. Uh-huh (affirmative).

Q. Dr. Lejeune, let me come I guess to what is the heart of the matter here and the heart of your testimony. You mentioned using the word conception and defining it in two different ways, defining it as the point where a zygote comes into existence and the point where we have a thought, and really would you agree with me, Dr. Lejeune, that what we're concerned about in this case and in the great debate about human life are definitions? How do we define a human being?

Q. Now, of course, when you define a human being, what we're assuming there is that a human being has certain rights whether God given rights or legal rights?

A. That is not what defines a human being.

Q. Of course not, I understand. But I take it and I will ask you directly, Dr. Lejeune: You have referred to the zygote and the embryo as quote 'early human beings.'

A. Yeah.

Q. Do you regard an early human being as having the same moral rights as a later human being such as myself?

A. You have to excuse me, I'm very, very direct. As far as your nature is concerned, I cannot see any difference between the early human being you were and the late human being you are, because in both case, you were and you are a member of our species. What defines a human being is: He belongs to our species. So an early one or a late one has not changed from its species to another species. It belongs to our kin. That is a definition. And I would say very precisely that I have the same respect, no matter the amount of kilograms and no matter the amount of differentiation of tissues.

Q. Dr. Lejeune, let me make sure I understand what you are telling us, that the zygote should be treated with the same respect as an adult human being?

A. I'm not telling you that because I'm not in a position of knowing that. I'm telling you, he is a human being, and then it is a Justice who will tell whether this human being has the same rights as the others. If you make difference between human beings, that is, on your own to prove the reasons why you make that difference. But as a geneticist you ask me whether this human being is a human, and I would tell you that because he is a being and being human, he

is a human being.

Q And I take it you would believe from your testimony today that it is morally very wrong to intentionally kill a zygote?

A. I think it's no good, it's killing a member of our species.

Q. And it would be the same as if we were to kill twenty years later the person, human being, that the zygote would become?

A. It's difficult to tell because you ask me a justice question; I'm a biologist.

Q Now, but those are your beliefs?

A. My belief is that it's no good to kill a member of our kin, very simple belief.

Q. There is not much difference to you between whether it's at the zygote level, the fetus level?

A. There is a great difference as they have not the same age. Some of them are very youthful ones, others are old ones. But it doesn't make for me a great difference, in the true sense of the fact it is discarding a member of my species. It's the only reason why I don't kill people, it's because they are human. Otherwise, some of them—some difficulty in life...

Q. Dr. Lejeune, you, of course, are a scientist, and I'm sure that in the large part, you base your convictions and feelings upon your knowledge of genetics and other sciences. Will you concede, Dr. Lejeune, there are other very distinguished scientists, men who are as learned as you, who have thought and who have access to the same scientific information that you have, who come to a different conclusion?

A. About what?

Q. About the moral rights or moral duty to the zygote.

A. Oh, in that case yes, but not about the fact it's a human being or not.

Q. I understand that.

A. But that's the point.

Q. I understand that. There are even, I believe, individuals in your own country who differ with your view of what ethical duty is owed to the zygote.

A. Well, I think in France we are divided in forty million opinions about that.

Q. But you do recognize there are men in your own country of

great learning who differ with your view on the ethics of the embryo and zygotic levels?

A. Oh, that's obvious.

Q I believe, Dr. Lejeune, in the earlier—or I'd say slightly mid-nineteen eighties, your country set up a commission to study the ethical concerns raised by the technology of in vitro fertilization. Are you aware of the national commission?

A. Well, you can call it a national commission, it's specially appointed by the president of France, so all the people have been nominated by the president. It's a presidential thing. It's not really a national thing. It's called national, but it's not elected so it's not representative at all.

Q. Well, I believe it was called national commission.

A. They have called them national commission, but you have to know they are not representative. They are not elected by bodies.

Q. Were you on that committee?

A. No, and I can tell you why, because I'm a member of the *Academie des Sciences Morales et Politiques,* moral and political sciences, and normally a member of this academy should have been appointed ex officio. Deliberately in the constitution, the by-laws of this committee, our academy was not put on it because they knew that the *Academie des Sciences Morales et Politiques* would appoint me. Just an interesting phenomenon.

Q. So you feel—

A. I don't feel anything about it. It's just a fact. I don't feel anything.

Q. You believe you were intentionally kept off this committee?

A. I believe that our academy was kept off, no doubt.

Q. Since they knew that it would be you that was appointed you were intentionally kept off?

A. That is a scientific hypothesis, not demonstrated.

Q. But you do, I take it, recognize that the members of the national commission that were appointed were distinguished persons in their fields?

A. I have never seen somebody in a committee who is not distinguished, sir.

Q. And regarding those individuals even if you disagree with them, I take it you would recognize their integrity?

A. Case by case.

Q Case by case.

A. Case by case.

Q Do you know all the members of the committee?

A. No.

Q But you would, in general, agree they are persons of integrity and learning?

A. Case by case.

Q Are you familiar with the report of the national commission?

A. Yes, I have read it.

Q. You have read it?

A. Yes.

Q. The report of your national commission expresses some very grave reservations about the technique we know here as cryopreservation. Are you familiar with that?

A. Uh-huh (affirmative).

Q Let me ask you this, Dr. Lejeune: Do you share those reservations about cryopreservation?

A. I have many reservations. Probably it's not very good.

Q. We heard testimony from Dr. Shivers, who was the embryologist who worked in this case, that with cryopreservation there was a statistical loss of the frozen embryos in the range of, I believe he said, fifteen to thirty percent.

A. He's a better specialist about this attrition percent than I am.

Q. So that you can expect, therefore, by the rules of statistics if we freeze one hundred preembryos, and we come back to thaw them at any point, we know the odds are very, very high we'll only have seventy, seventy-five or eighty?

A. Uh-huh (affirmative).

Q We knew that before we put them in the frigidaire?

A. Yes.

Q Would you regard that as an intentional killing of embryos?

A. No. But I would consider that it's making the embryo running a risk, and whether this risk was in the best interest of the embryo or not is an open question. I explain. When we do an intervention in a baby for a heart disease, in some intervention we know that around twenty percent of them will be killed by the intervention. And in this case the intervention is made only if we know if we don't operate the

child will be killed by the disease at ninety-nine percent of probability. Then we say in the real interests of this patient the best for him is to operate even if the operation is still dangerous, the danger is much greater if we don't operate. That is a way you can make indeed some choices in medicine which are dangerous but which are, in fact, the best that you can do in the interest of this particular patient.

Now, in the case of an embryo. I am not sure it is in his own interest that this choice is made.

Q In fact it's made in a choice that as Dr. Shivers and Dr. King testified previously, that it merely gives the woman a better chance since she won't have to go through the stimulated cycle having shots and medication, hormones injected into her, it simply gives her a better chance of becoming pregnant. You're aware of that?

A. I am aware of that.

Q. So in cryopreservation we know that we are going to kill ten, twenty, thirty percent of these early human beings merely so the woman has a better chance of getting pregnant?

A. That would be one of the reservations that I would have, but I dislike you say you kill. It's not killing.

Q. If we were to take the members, the individuals seated in the jury box and I were to have a room I could put them in where we would know that thirty percent of them would come out dead, would you not agree I would be guilty of murder?

A. Well, it depends, sir, because if the room you were talking about were a shelter during a bombing time and if remaining in that room all of them will be dead, but in the shelter some of them will survive, even if thirty percent of them will be dead, you did well. So it depends on the reason why you did it.

Q. What if I did it not to take them out of a position of greater harm but merely for the benefit of some person other than themselves, not one of them but Mr. Palmer?

A. I suppose he would refuse you do it, I'm sure.

Q. You recognize the ethical and moral dilemma I'm raising, of course?

A. No, I don't recognize it, sir.

Q. You don't?

A. No, because you use the word killing. And if you take a embryo

which has been frozen and you put him briskly at normal temperature so that he will die, you are killing the embryo. If you are freezing the embryo you are not trying to kill him, if I understand what you have in your mind is to help the embryo surviving so he could be implanted in the womb of the mother. So your technique is not good because you lose part of them, but you are not killing. And I would not say that my colleagues who are freezing embryos are killers. It's not true. Otherwise, maybe it's because I don't understand English, but I would not use the word kill.

Q. The national commission in its report used a term which in English is supernumerary?

A. Yeah.

Q. Referring to supernumerary embryos, referring particularly to cryopreservation, embryos which are not to be used with a particular patient, woman, who has undergone IVF. Are you familiar with that term, first of all?

A. I know that term, and it's a wrong term. Can you tell me a man who is supernumerary?

Q. Maybe just a lawyer.

A. I don't believe that, as a man he is not supernumerary. Maybe I'm not saying anything.

Q. But that is the term that is used in the report of the national commission?

A. Yes, but it is a very misleading term, exactly the same thing as preembryo. You change the name because you will change your behavior, and I dislike that. I like to call a cat a cat, and a man a man. It's Wendell Holmes who said a man is a man is a man.

Q. And a dog a dog and chicken a chicken?

A. No, but "a man is a man is a man," is a saying in your country.

Q. Well, rather at this point debating whether the term was wise or not, I'm asking if that was the term that was used.

A. Right.

Q. Now, as I think I asked you and you told me awhile ago, the French commission did have reservations about the whole process of cryopreservation, because, of course, it leads to the precise problem that we have in this case. Of course, you know that regular IVF the woman is implanted or preembryos—excuse me, the embryos are inserted within forty-eight hours?

A. As soon as you can, yes.

Q. Whereas with a cryopreserved embryo, it might be six months, it might be a year. In fact, I believe that you are aware that the French guidelines provide for a year for the first child, recommend that a cryopreserved embryo should not be saved longer than twelve months for the first child?

A. Could I tell you because you speak about what is said in French that this committee is consultative. It means that what he says as guidelines is for himself.

Q. But these are the guidelines published by the national commission that was appointed by your government—

A. It's consultative. It has no law, no force; just an opinion.

Q. But you are aware that the commission recommended one year for the first child?

A. Yes.

Q. And then with an extension of an additional twelve months if a second child was desired?

A. I don't follow you.

Q. One question that was raised in the commission was how long you should keep a cryopreserved embryo?

A. Yes.

Q. Now, and the committee recommended that it should not exceed twelve months without very special circumstances and without a great deal of thought by people concerned with the ethical dilemma of IVF, do you recall that?

A. I know about that, but I don't see the meaning.

Q. I'm just asking you about the report at this point.

A. Yes. Nobody knows from where it was coming, the time of one year. Out of the air?

Q. Now, the French commission recognized that one of the dilemmas that was posed by cryopreservation again was the open ended time, time during which, as in this case, things could change, is that correct?

A. I have to be very precise, I don't know by heart the whole document you are talking about.

Q. I'm not going to ask you to quote it. But let me ask you this: Are you aware that the national commission of France that spoke on this subject recommended that in the case where the project of the

couple, that is, the IVF project of this couple is abandoned in the meantime, and that meantime refers to cryopreservation being used or is unfeasible because, for example, of the separation of the couple, the only solution retained by the committee by way of the least evil consist in the destruction of the embryos with the reservation of the possibility of donation for research?

A. I'm not aware of that at all, sir, because the consultative committee said it would not give any indication because they have not reached any opinion. I don't know what document you are talking about, but the one I have read was not this one. If you talk about this document, the opinions saying that it's better to kill the frozen embryos, it's just in my opinion wrong, I disagree with it.

MR. CLIFFORD: Your Honor, may I approach the witness?

THE COURT: You may.

BY MR. CLIFFORD:

Q. Let me show you a page here which unfortunately for me is in French.

A. That's good for me.

Q. And ask if you could read the title of the document?

A. (Reading in French.)

Q. Could you—

A. I'll try to make a translation. Advice concerning research on human embryos in vitro and their utilization for medical and scientific purposes.

Q. Could you continue to read the page? If you would rather not

A. Well, what interest?

Q. Just the headings.

A. Recommendation to the use of in vitro fertilization as answer to infertility it's very long.

Q. Well, that is, in fact, the report of the national commission, is it not?

A. Well, I'm sorry, sir, but it's not printed. It's something made on a computer. I don't see any important document there because it's probably it has been a project of it, but it has not been published as a final advice because as I know, what I have heard on television, they said they have not reached an opinion on that. I'm sorry, but it doesn't matter anyway. It's a consultative party.

Q. I'm somewhat surprised by that answer, Dr. Lejeune, because

I'm given to understand—you can correct me here—in December of 1986, a committee of distinguished French scientists made their report to the government. The report was started 1983.

A. No, no, there is no final advice given by this body on this particular problem. They have discussed it, and they said we will continue to discuss it, as far as I know.

Q. As far as you know?

A . U h-huh (affirmative).

Q. You are not familiar with the national commission report?

A. When it is published, yes, I read it, but that is not published matter. I don't see where you want to go with this question.

Q. In fact, Dr. Lejeune, will you agree with me, sir, that there are distinguished, learned men and women in your own country of France who take the view that when a couple separates or is divorced that any embryos that may be in cryopreservation should be discarded or destroyed?

A. That there exists people thinking that, no doubt, because if they say that it's probably because they think it. But it does not prove they're right.

Q. Of course, not. Of course, not. And, of course, I take it because you have your feelings, you would concede that it does not prove that you are right?

A. On that, I would not agree entirely with you.

Q Okay. All right. Would you agree with me, Dr. Lejeune, that really, of course, we're talking about what will become in this Court a legal question?

A. Yeah, partly.

Q. And that legal question is what quote 'rights,' if any, an embryo should have legally?

A. Disagree with that. I'm not thinking about the rights of the embryos; I'm thinking about the duty of the parents and of society. Duty is a different thing.

Q Let's talk about duty because that is a word that courts can understand. You believe, in fact, there is a duty, and a strong duty, to bring, or attempt to bring an embryo to term and birth?

A. The embryos have been frozen for that purpose.

Q. I'm not so much talking about the particular seven embryos in this case, but any embryo that's been produced by IVF or in vitro fer-

tilization.

A. It if it has been produced, it has been produced in the view that it could be put somewhere in which it could be developed, that is the womb.

Q So you would believe that the man has a duty to bring it to life, bring it to birth rather, is that correct?

A. What man?

Q. This man, the man who is the donor of the sperm.

A. Yeah.

Q. That he has a duty, a moral duty to bring it to term?

A. Yes.

Q. And you would believe that the woman has such a duty?

A. I would believe that if she was not feeling having that duty, she would not have accepted the beginning of the process.

Q. Now, you, of course, are best known for your discovery of the chromosome connected with Down's Syndrome?

A. That is long ago.

Q. You have researched since that point other conditions or diseases, abnormal conditions which relate to the chromosomes that are passed on by heredity, is that correct?

A. Yeah.

Q. If I understand what you also told us this morning, it is possible to tell at the zygote level whether—

A. Not at the zygote level.

Q. At the embryo level?

A. Yes, and late embryo.

Q. Late embryo level whether or not this early human being will suffer from Down's Syndrome?

A. Oh, yes, yes.

Q. And as

A. In fact, it's essentially for a fetus. It is after two months.

Q. But there is no reason that you know of, I take it that we could not at some point in the not very distant future even make that diagnosis in the embryo level?

A. In some future, might not.

Q. I take it from your testimony, Dr. Lejeune, you would believe that even if the embryo, that early human being, was going to suffer from Down's Syndrome or some other very serious condition or

abnormality, that it would still be the duty of the mother and the father to bring it to term?

A. I would say the duty is not to kill, and that duty is universal. And I would say that if by technique I was looking at the chromosomes of this baby, and I see the chromosomes abnormal, say for example, he has a trisomy twenty-one, I would say that this is the disease. But if I look at the other forty-six chromosomes that are normal I would see the mankind of the baby. And I don't condemn a member of my kin.

Q. You would believe that the donors of that embryo would have a moral imperative, a duty to bring that

A. Not to kill the embryo.

Q. That early being into a later stage of human being?

A. Not to kill him.

Q. Now, let me drop back down to a bit more normal level of questions, Dr. Lejeune. Bear with me. Let's take a embryo in general, just statements that we can make about all embryos that would be true. That there is obviously a genetic contribution both by the woman and by the man?

A. Yes, there is a contribution by the father and by the mother.

Q. By the father and by the mother?

A. Yeah.

Q. And without the contribution of either there would be no embryo?

A. Correct.

Q. So on that sense the contributions of the mother and contribution of the father—

A. Are both necessary.

Q. Are equal?

A. No, they are not equal. They are different, but they are both necessary.

Q. Both—

A. Necessary, absolutely.

Q. And now let's talk about a particular embryo, early human being, and let's look at this early human being when it's became a later human being. Obviously, as far as the genetic makeup of this particular individual, it might be, in fact, more strongly influenced by the mother's contribution, at least in some areas, or might be more

strongly influenced by the father's contribution.

A. Who knows.

Q Who knows. And, of course, unless we were to examine it, we wouldn't know.

A. Uh-huh (affirmative).

Q. And certainly you are not in this Court saying that women contribute more genetic material?

A. In fact, I'm obliged to say, yes, they contribute more genetic material. For example, all the DNA on the mitochondria is coming from the mother not from the father. Makes a little difference. It's a fact.

Q. It's a fact?

A. It's a fact.

Q. But it's also a fact without both contributions—

A. They are both necessary, no doubt.

Q. But you are not here today saying, Dr. Lejeune, that the reason, the sole reason that Mrs. Davis should win this case and prevail is because her DNA contribution may have been slightly more than Mr. Davis' DNA contribution?

A. I don't understand your question. I cannot see how you can solve a judicial problem with DNA contributions.

Q. You are saying that it's your opinion that these embryos should be allowed to develop in this young lady because you believe they're early human beings?

A. I do believe they are early human beings, and I have been told that their mother offered them shelter. Who could refuse that?

Q. But not because of DNA contribution?

A. Because they're her own flesh.

Q. Well, they're his own flesh, too, aren't they?

A. Yes.

Q. And obviously he will be their father forever, for the rest of his life if there are children?

A. (Witness nods head in the affirmative).

Q. You will not deny that would have an effect?

A. I would not deny anything.

Q. I take it, Dr. Lejeune, therefore, if you believed that a embryo was not a human being as that term is used in ethical or legal or moral or philosophical or religious way that your view of this case

may well be different?

A. Totally. If I was convinced that those early human beings are, in fact, piece of properties, well, property can be discarded, there is no interest for me as a geneticist. But if they are human beings, what they are, then they cannot be considered as property. They need custody.

Q. What it really turns on is what philosophically, ethically, legally that embryo may be. In your mind, sir, you have come to the very firm convition that the early embryo or that the embryo is a human being, early human being, as you described it?

A. Yes.

Q And you do recognize in other men's minds, after long and deep thought, learned men, they come to the opposite conclusion you do?

A. No, I don't agree with that.

Q. You don't agree with that?

A. I have not yet seen any scientist coming to the opinion that it is a property. It is what is the case. It's whether they are property that can be discarded, or whether they're human being who must be given to custody. That is it. You ask my question, I answer precisely; I have never heard one of my colleagues—we differ on opinion of many things, but I have never heard one of them telling me or telling to any other that a frozen embryo was the property of somebody, that it could be sold, that it could be destroyed like a property, never. I never heard it.

Q. Just so I understand what you're telling us, I take it, Dr. Lejeune, from your testimony that you would be opposed to abortion?

A. Oh, I dislike to kill anybody. That is very true, sir.

Q. You would believe that abortion should not be legal?

A. That is another point which is different. I think abortion is killing people, and I think in a good jurisdiction would make those killing people become rare. You cannot prevent everything.

Q. I take it, again, your basis of that belief would be that the fetus or embryo is an early human being?

A. Exactly. If it was a tooth, I would not worry about it.

Q. Finally, Dr. Lejeune, I'd like to thank you very much first for coming here to Maryville, Tennessee, to share your scientific and philosophical views with the Court. I hope that you enjoy your stay and that your trip back is enjoyable. I have only one final question for

you. Okay? What is this?

A. Well, from here I suppose it's an egg, but I'm not sure.

Q. Let me get a little closer.

A. It looks like an egg.

Q. It's an egg?

A. It looks like.

MR. CLIFFORD: Thank you, Doctor, I thought you were going to tell me it was an early chicken.

THE WITNESS: Oh—

MR. CLIFFORD: I have no further questions.

THE WITNESS: Your Honor.

THE COURT: You may respond, if you wish.

THE WITNESS: Yes, I would respond to that because I have never pretended that I could see through a shell. I don't know if it's has been fertilized so I cannot know whether it's an early chicken.

BY MR. CLIFFORD:

Q. All right. Let's talk about the difference for a moment. If I had in this hand a live chicken. would you agree with me if I were to take it and squeeze its head that it would feel pain?

A. Oh, probably.

Q. That it will be frightened?

A. Yes.

Q. And it would suffer psychological, if you can use that term with a chicken, stress?

A. I'm not competent in psychology, you told me, and especially not about chickens.

Q. But if I take this egg and assuming it is fertilized I wouldn't really do this, Jay—but if I were to crush it in my hand, this egg would not feel pain, it would not be aware in the slightest of what was happening to it?

A. Yeah. But it would be still a chicken and only a chicken.

Q. I thought you told me it was an egg?

A. You told me it was a chicken.

MR. CLIFFORD: No further questions.

(A brief discussion was held off the record.)

CROSS EXAMINATION

BY MR. TAYLOR:

Q. Dr. Lejeune, I have just a very few questions. You testified earlier that in the case of freezing human embryos, the temperature is lowered only to, I think, a hundred and eighty or ninety degrees below centigrade, is that correct?

A. Yes, generally.

Q. And because that is not absolute zero there are still certain processes that continue within those embryos?

A. Very slowly.

Q. And because of that, it is your opinion that life or the processes are not suspended completely, and therefore the embryo continues to age or develop, is that right?

A. No, it does not continue to develop, but it can age in the sense of losing some properties because of the agitation of the molecule and not being able to repair it. It's the reason why if you freeze cells, ordinary cells in tissue culture, and if you thaw them, after one month you will get ninety percent groove, after ten years you will get fifty percent, so eventually some of them have died in the process.

Q. Is it then your opinion if these embryos are left in this frozen condition indefinitely, ultimately they will perish?

A. If they were to be protected for a long time, I would put them in liquid hydrogen, but it will cost very much.

Q. If they're in liquid nitrogen which is not absolute zero, is it your opinion that they would ultimately perish?

A. I cannot tell time but ultimately.

Q. Is it your opinion that the ultimate effect of storage in cryopreservation ultimately would have the same effect as destroying them now?

A. In the ultimate, yes, but I dislike to speak about very long time because I'm not sure of what would happen in between.

Q. Yes, sir. You indicated that you do not object to in vitro fertilization as a process, do you?

A. I do not favor it for theoretical reasons. I guess it's a trick we use now in the present stage of knowledge, but it's not the best answer. If you read the newspaper it seems to be the last word about helping reproduction, and I guess it's a wrong idea. But that is a technical opinion.

Q. Even though it may not be the ultimate solution, the ideal solution, you would concede that many, many infertile couples have

been helped by in vitro fertilization, would you not?

A. I would consider some have been helped, but the number that have been helped by other methods is much greater. But some have been helped, no doubt.

Q. Doctor, you indicated that one of the reasons you objected to cryopreservation was because there is a mortality rate, certain percentage of the embryo do not survive the process, is that correct?

A. It's not only that. That is one of the reasons, but it's not the only reason.

Q. Are you aware, Doctor, in a normal cycle, a natural reproductive cycle that as many as sixty percent of the ova produced by a mother undergo actual fertilization? Are you familiar with that particular statistic?

A. No, I don't understand what you mean.

Q. We have been told that as many as sixty percent of the eggs produced by a mother may be actually fertilized, but statistically only about twenty-five actually result in a birth.

A. You mean about the early death of early human beings. Well, it has been a very disputed field. To the best of our knowledge, we can rely on experimental animals because we can look at the number of yellow corpus which develops on the ovary and tells us how many eggs have been laid and look at the litter, for example, in mice or any other animals. It seems that thirty percent of the conceptus die, but that more than sixty percent of conceptus come to birth and to normal—that has been established in many wild animals. Then it seems that the number of early deaths has been overestimated recently in our species. I would guess it around the order of thirty percent. Some of them said sixty percent; I would guess myself it's around closer to thirty than to sixty, but that is

Q. You do recognize—

A. A sizable number.

Q. You do recognize, do you not, though, Doctor, that when a man and woman attempt to have a child by normal sexual intercourse, there is a percent of embryo human beings, in your terminology, that are created that never result in a birth; that is a risk they undergo?

A. It's difficult to answer your question because some of those fertilizations are probably abnormal fertilizations that can be early cysts and what we call empty cysts which are probably not really true fer-

tilizations. It is very complex, but I agree with you that the road of life is dangerous even at the very beginning.

Q. I guess my question is, Doctor, then even in natural intercourse trying to achieve a pregnancy, there are going to be some risks that some of the embryo will not survive just like in vitro fertilization?

A. Yeah.

Q. Finally, Doctor, as I understand your testimony here today, if you were advising his Honor on a solution to this very troublesome problem, your first preference would be that the embryo be returned to the mother, Mrs. Davis, in this case, is that correct?

A. I would go step by step, if you ask me, May I, your Honor)

THE COURT: Yes, you may.

THE WITNESS: I would first say it's not a property so they must not be destroyed. Secondly, they have been put into suspended time in the hope that some day they will be given shelter by their own mother, and their mother offers them shelter. I don't see any reason not to grant it to them and to her.

BY MR. TAYLOR:

Q. Let me take that one step further: If his Honor should decide for some reason that it is not appropriate that Mrs. Davis, the mother, should have these embryo, would you then agree that the second preference, the second best solution would be to donate them to some other couple, some other mother who would bring them into being, or attempt to bring them into being?

A. I would agree with that because that would preserve the life of the embryos, but then if you agree with that, you are coming back to the Solomon decision. The true mother is the one who prefer the baby given to another than the baby being killed. Then I would suppose that the justice would be on the side of Solomon.

MR. TAYLOR: We all hope his Honor has the wisdom of Solomon. I hank you, Doctor.

THE COURT: Do you have anything?

MR. CHRISTENBERRY: No, thank you, your Honor.

THE COURT: Any recross?

MR. CLIFFORD: No, your Honor.

THE COURT: Dr. Lejeune, you may come down and have a seat over here with Mr. Palmer and Mr. Christenberry.

(The witness was excused.)

SUPREME COURT OF TENNESSEE
AT KNOXVILLE

JUNIOR LEWIS DAVIS,
Plaintiff/Appellee

vs.

MARY SUE DAVIS (STOWE)
Defendant/Appellant

S/C NO. 34
BLOUNT COUNTY

AMENDED PETITION FOR REHEARING

Comes now Mary Sue Davis (Stowe), Defendant/Appellant in the within cause, by and through her attorneys, Richard D. Hash, R. Martin Palmer, Jr., and John W. Brabner-Smith, pursuant to *Tennessee Rules of Appellate Procedure* Rule 39, and petitions this Honorable Court for rehearing for the following reasons:

Respectfully, the Court's Opinion: (1) incorrectly states the material facts established by the evidence as set forth in the record, as more fully enunciated in the testimony of Dr. Jerome Lejeune, a certified transcript of which was attached to the Petition for Rehearing as Exhibit A, and which certified transcript is set forth herein as if copied verbatim and made an integral part hereof. It is believed that other than supportive references to the testimony of Dr. Jerome Lejeune by the Honorable W. Dale Young of the Blount County Circuit Court in his written Opinion, the Tennessee Supreme Court did not have a full transcript of the record of the trial testimony, specifically the scientific testimony of Dr. Jerome Lejeune, upon which Judge Young relied in reaching his decision which inter alia found that human life begins at conception. Dr. Lejeune's testimony was excised from the Abridged transcript. Appellant avers the Abridged transcript was not "sufficient to convey a fair, accurate and complete account of what transpired" at the Trial Court as required by *Tennessee Rules of Appellate Procedure* Rule 24. Appellant further avers that this Court can order the inclusion of Dr.

Lejeune's testimony and rely upon it in making its final decision. Without Dr. Lejeune's testimony Appellant simply believes she cannot be accorded a full and fair disposition upon appeal. Judge Young's Opinion inter alia stated that:

A. The seven cryogenically preserved embryos are human embryos;

B. Human embryos are not property;

C. Human life begins at conception;

D. The term "preembryo" is not an accepted term and serves as a false distinction between the developmental stages of a human embryo; and

E. Mr. and Mrs. Davis have produced human beings, in vitro, to be known as their child or children.

(2) The Court's Opinion is in conflict with a statute, prior decision, or other principle of law;

(a) The Opinion conflicts with and misapprehends the controlling principles and precedents of the Federal Right of Privacy under the Due Process Clause of the Fourteenth Amendment of the United States Constitution. A liberty interest is only accorded the status of a Federal Right of Privacy where such interest is so rooted in the tradition, history and conscience of the American people as to be ranked as fundamental. See *e.g. Bowers vs. Hardwick* 478 U.S. 186 (1986). Mary Sue Davis Stowe's right to protect her offspring—the seven human embryos at issue—and her right to procreate are fundamental privacy rights under the applicable principles and precedents. See *e.g. Meyer vs. Nebraska* 262 U.S. 390 399-402 (1923), *Skinner vs. Oklahoma* 316 U.S. 535 (1942). By contrast, under the tradition and history of the American people, Junior Davis' liberty interest in insuring the destruction or demise of the human embryos cannot be considered fundamental. *Thornburgh vs. A-COG*, 476 U.S. 747, 793, and note 2 (1986) White J. (dissenting) (fundamental right of parent to make a decision regarding the upbringing of child does not extend to assault committed upon child)

The existence of these seven human embryos outside the mother's body cannot strengthen the father's right to demand their destruction as such act retains its disfavored and destructive nature. Any suggested lack of federal or state Constitutional personhood for human embryos, moreover, cannot destroy Mary Sue Davis Stowe's

fundamental right to value these parties human embryos as unique individuals and as her offspring and to exercise her fundamental right to protect them through the balance of their gestation process:

Mary Sue Davis Stowe's greater physical burden in the in vitro fertilization process and in any future such processes in combination with her desire to value and protect her offspring, constitutionally mandate that her wishes, rather than those of Junior Davis be honored. Moreover, under the *Supremacy Clause* no purported state law right or interest of Junior Davis may usurp Mary Sue Davis Stowe's Federal Privacy Right. See *United States Constitution* Article VI, Section 2.

(b) The Tennessee Constitution Article 1, Section 34, generally states that the legislature shall make no laws recognizing a right of property in man. That mandate which ostensibly only applies to the legislature, certainly was not intended to allow the Court's of this State to recognize a right of property in man. The human embryos as the offspring, descendants or progeny of man—are man—and cannot be treated as property or placed in an "interim classification" that treats them less than man.

(c) The Supreme Court's Opinion also is violative of Executive Order, Presidential Proclamation 5761, issued by Ronald Reagan on January 14, 1988 which recognizes Fourteenth Amendment Rights of personhood apply to children from conception. Said Proclamation is law of this land. It has not been contravened by any Federal Legislation. The Supremacy Clause gives it greater weight than any other State Legislative actions. Judicial Notice of the Presidential Proclamation is also required. A copy of said Presidential Proclamation is attached hereto and made a part hereof, which provides in pertinent part for the "...God-given, unalienable rights possessed by every human being; and the example of our determination to secure those rights and to defend them against every challenge through the generations.

...NOW, THEREFORE, I RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and

laws of the United States are faithfully executed for the protection of America's unborn children. Upon this act, sincerely believed to be an act of justice, warranted by the Constitution, I invoke the considerate judgment of mankind and the gracious favor of Almighty God."

This Presidential Proclamation No. 5761 declaring "the unalienable personhood of every American from the moment of conception until natural death" is positive federal law in the absence of conflicting legislation by Congress, ascribing personhood to the preborn child under the Fourteenth Amendment, and imposes the "due process" protection of the Fifth and Fourteenth Amendments for every preborn child from conception effectively obviating state laws or Court decisions failing to recognize and alienating said rights.

The unalienable right to life is "so rooted in our traditions and consciences as to be fundamental:" it is vested by the "law of nature and nature's God" foundational to the Declaration of Independence: it is guaranteed by the requirements of "due process" and "equal protection" in the Fifth and Fourteenth Amendments; and it provides a basis for a judicial decision independent of the requirements of Proclamation No. 5761.

Like President Lincoln's Emancipation Proclamation, this Proclamation No. 5761 is a public law. It was issued by President Reagan pursuant to his "Executive Power" authority and obligation to "take care that the laws be faithfully executed" under Article II of the United States Constitution. Indeed, Proclamation No. 5761 by President Reagan is just as sweeping as that of President Lincoln in freeing the slaves, both of which guaranteed *life to humans* who were defenseless and oppressed. Strongly held opinions on each side of the issue existed. Presidents, in equally critical times in our Nation's existence, have moved politically by way of proclamation to change the course of history.

Ample Constitutional and other legal authority support Proclamation No. 5761. *Independent Meat Packers Ass'n vs. Butz,* 526 F.2nd 228, 235 (8th Cir. 1975), cert. denied, *Consumer Fed. of Am. vs. Butz,* 424 U.S. 966 (1976), invalidated a Presidential proclamation because it cited no specific source of authority other than generically "the Constitution and laws of the United States." However, Proclamation No. 5761 enumerates eight different bases for its declaration of the "unalienable personhood of every American from the

moment of conception until natural death" as law. They are 1) the Declaration of Independence; 2) the Constitution (Article II, Section 3) that every President is sworn to preserve, protect and defend; 3) the Fifth Amendment; 4) the Fourteenth Amendment; 5) our history; 6) our heritage; 7) our concepts of justice; and 8) recent medical and scientific evidence. Proclamation 4-6, 3 C.F.R. 3 (1988 Comp.). The U.S. Supreme Court has unequivocally held that the duty of the President—pursuant to the Constitution, Article 2, Section 3, which obligates him to "take care that the laws are faithfully executed," is not limited to express laws of Congress and express terms of treaties, but includes "the rights, duties and obligations growing out of the Constitution itself...and all the protection implied by the nature of the government under the Constitution." In *Re Neagle,* 135 U.S. 1, 64 (1890).

Thus, the scope of the Executive Power extends to the Constitution, its interpretation and execution. Otherwise the President's oath of office to "preserve, protect and defend the Constitution" is meaningless. Consequently, as an independent branch of the government, the Executive is obliged to make his own interpretation of the meaning of the Constitution on matters committed to that office.

It is the duty of the courts to uphold the constitutionality of the President's action. Great weight is accorded the President's own interpretation and construction of his powers. The courts will assume that the President has complied with the requirements of the law. Glendon A. Schubert, Jr., *The Presidency and The Courts* 354 (1974) (comprehensive listing of Presidential Orders from 1919-1953).

(d) The act providing for the admission of the State of Tennessee to the Union admitted Tennessee with the same rights and responsibilities as the 13 original States. The act reads in part: "The laws of the United States shall...extend to and have force in the State of Tennessee in the same manner as if that State had originally been one of the United States." U.S. Statutes at Large, 4th Congress, Section 1, Chapter 47. One of those laws was the act dated July 4, 1776, which provides that each person has an unalienable right to life. This fundamental law of Tennessee was not presented to the Tennessee Courts, neither on the original action nor in the appeal proceedings of this case. "Unalienable" implies a right that is absolute

and cannot be overridden by constitution or legislation. The Declaration of Independence invokes the law of nature and nature's God as its authority, and affirms that "all men are created equal" and endowed by their Creator with the unalienable right to life. The plain meaning of this language is that constitutional protection for every life vests when these rights are endowed by their Creator with the unalienable right to life. The plain meaning of this language is that constitutional protection for every life vests when these rights are endowed by the Creator—when the creation process of that individual begins at conception. Therefore, the "unalienable right to life" of the seven human embryos must be protected by the Supreme Court of Tennessee as a matter of federal constitutional law independent of the question of when life begins, or of the requirements of Proclamation No. 5761, since the act of 1776 known as the Declaration of Independence was properly treated by President Lincoln as the Charter of our liberties and constitutional government.

(3) The Court's Opinion overlooks or misapprehends a material fact or proposition of law;

(a) Because the transcript of Dr. Lejeune was not included the Court obviously was not apprised of the scientific facts supporting Judge W. Dale Young's decision. This is why it is imperative that Dr. Lejeunes testimony be reviewed prior to making a decision and that later briefs be allowed to point out specific detailed indepth portions of his testimony which Judge Young's relied upon in making his decision.

(b) Additionally, the Court has misapprehended another material fact and related propositions of law in that the Court has allowed Mr. Davis "not to become a father against his will" after he has already intentionally become a father. It is suggested the fathers rights must be tied to and become operative upon the only event he is required for in the human reproductive process—the delivery of his sperm. Once his sperm has been delivered and a human embryo has been created, he has operationally initiated the human reproductive process, it is too late to exercise his right "not to become a father" because the process of bringing a new life into the world has already begun. Unquestionably, Mr. Davis had a contraceptive right "not to begat," "not to procreate," or "not to become a father against his will" but he simply did not timely exercise that right because he has

already become a father seven times by the intentional creation of the seven human embryos. Appellant suggests the only person allowed to interfere with the human reproductive process once it has begun is the mother and that is only when she exercises her very limited exception as provided in The Abortion Statute which is not applicable here because no female is pregnant. To give Mr. Davis post-conception decision making authority in the human reproductive process has no ends. If any decision making right is allowed past conception his right "not to beget," "not to procreate," or "not to become a father" could be construed to preclude the live birth of a child the day before its birth, which this Court certainly and hopefully would not sanction. Accordingly, there is no better point of demarcation than to assign the fathers rights at conception. He has a preconception right not to become a father, but post-conception he cannot have that right or chaos will result.

(c) Additionally, the Court misapprehends a general policy of this state and/or has misapplied it. It is a general policy of this state to foster and promote to continuation and dignity of human life. The fact that this reproductive process is not conventional does not mean that the natural rules governing its continuation should be cast aside and does not mean it is not Constitutionally protected. The general policy to foster and promote the continuation and dignity of human life and the common law and natural law dignifying the same are that once a human embryo is created within its mother it is afforded her natural refuge and protection until it is fully gestated. Even the mother did not have a right to interfere with the human embryos development to maturity until the Tennessee Abortion Statute was passed. The fact that the Abortion Statute does not apply to the female because no female is pregnant does not automatically give the male a concomitant right to abort the human embryos. Abortion rights are statutory, they simply are not applicable in this case. It is important to note that the general policy of this nation is that once a human embryo—or human being as it truly is—is created in utero, it is generally closely protected while it continues its gestational development. This Court needs to select the policy that most closely favors that natural policy. That policy is consistent with the mother's wish in this case that the human embryos be donated for their continued gestational development.

(4) The Court's opinion relies upon matters of fact or law upon which the parties have not been heard and that are open to reasonable dispute. The matters of fact upon which the parties have not been heard relate to Dr. Lejeune's missing testimony including a full development of the uniqueness of man from the creation of the first cell. The Court has engaged in semantics as to whether the beings involved are "preembryos" or "embryos." The conceptus—the product of the human sperm uniting with the human ovum—could be called numerous names, such as embryo, zygote, gamete, blastocyst, etc., but labels and names are confusing, totally inapplicable, and totally irrelevant. The Court must concern itself with what it is dealing with and not what it is called. Subsequent to the uniting of the human ovum and the human sperm, the conceptus or the embryo, is a unique individual human being, based upon the scientific proof of record in this exact case, properly adduced in the trial court below and properly binding upon this Court on appeal. What is at stake here is the continuing development of that unique individual, and that is all that matters—no matter what you call the human embryo. You can assign a different name to the conceptus or human embryo every week as it develops and as each of its organs or systems begin to develop, but that is pointless. The only thing that matters is that all the information necessary to create a new individual and unique human being is fearfully and wonderfully written in the smallest subscript of the universe—all information necessary for the new human being to build himself, even to build a human brain capable of contemplating the laws of the universe or going to the moon and putting a human footprint upon the moon, or reading and understanding an act of Independence of 1776 referencing the "laws of nature and nature's God" and the unalienable right of man, or of reading the subsequent Opinion that shall be opined by these appellate Courts—all that is necessary for the new human being to build himself to build his brain is fearfully and wonderfully present in the first cellular conceptus. It is a being, and being human, it is a human being. It is a person and not property because it is the only being which has the property of building himself. Subsequent to that time it's obvious rights have been accorded at later stages in the development of the child, but the important thing to note is that the general rule allows the continued individual development of the child

through gestation. Our legislature has recently passed laws giving preborn children i.e. those children that are considered viable certain rights in relation to third party criminal acts and vehicular assaults, etc., which erodes the strict enforcement that a preborn human being is not a Fourteenth Amendment "person" because the statute simply and eloquently calls them an "individual" or "another person" in the statute. Presidential Proclamation 5761 extended the Fourteenth Amendment coverage to the unborn from the moment of conception. It is Law of this Land and respectfully should be followed.

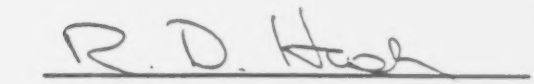
A rehearing is requested to permit presentation and argument of matters of fact and law not fully argued or for that matter not properly brought to this Courts attention.

Tennessee Rules of Appellate Procedure Rule 39 provides certain guidelines as followed above for the Court to consider in determining if a rehearing should be granted. Rule 39 is somewhat open and vests wide latitude and broad discretion in the justices as to whether *any* case should be reheard. Appellant's attached Brief of Law suggests numerous public policies, statutes, Tennessee and United States Constitutional issues, an Executive Proclamation, and factual explanations of scientific concepts which appellant avers should *in all fairness* be considered or reviewed before a final decision is made in such an important case. While there is reference in Rule 39 (b) to "briefs relief upon" there is apparently no direct authority to file a brief in support of a Petition to Rehear, however, a Brief is submitted herewith which covers in detail the appellants position and the numerous references as stated above in support of her Amended Petition to Rehear. Appellant respectfully urges this Honorable Court to review said brief prior to deciding if it should rehear this matter.

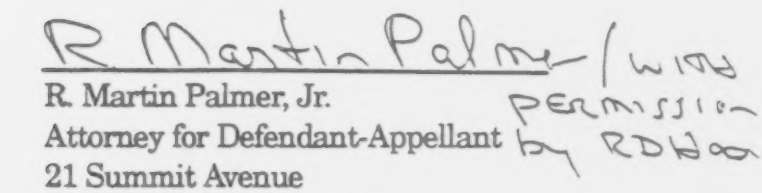
This case of first impression in Tennessee will be a case of lasting impression for Ms. Davis (Stowe) and her seven human embryos as preborn children, and all other persons in the United States who agree with the unalienable rights of the preborn child as enunciated by President Reagan in his Presidential Proclamation issued in the Year of our Lord nineteen hundred and eighty-eight 1988 referencing the guarantees of "The unalienable right to life as found not only in the Declaration of Independence but also in the Constitution that every President is sworn to preserve, protect, and

defend. Both the Fifth and Fourteenth Amendments guarantee that no person shall be deprived of life without due process of law."

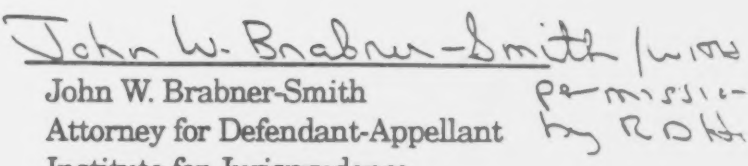
Respectfully submitted,



R. D. Hash
Attorney for Defendant-Appellant
211 Ellis Avenue
Maryville, Tennessee 37801



R. Martin Palmer, Jr.
Attorney for Defendant-Appellant
21 Summit Avenue
Hagerstown, MD 21740
(301) 790-0640



John W. Brabner-Smith
Attorney for Defendant-Appellant
Institute for Jurisprudence
1026 Sixteenth Street, N.W.
Washington, D.C. 20036
(202) 737-7658

CERTIFICATE OF SERVICE

I hereby acknowledge that I have furnished a true and exact copy of the foregoing Pleading to Charles Clifford, Esquire, 117 E. Broadway, Suite 2, Maryville, TN 37801 and Charles G. Taylor, III, Esquire, 10805 Kingston Pike, Knoxville, TN 37922 by depositing same in the United States Mail, postage prepaid.

This the 26th day of June, 1992

Richard D. Hash

RICHARD D. HASH

National Sanctity of Human Life Day, 1988

By the President of the United States of America

A Proclamation

America has given a great gift to the world, a gift that drew upon the accumulated wisdom derived from centuries of experiments in self-government, a gift that has irrevocably changed humanity's future. Our gift is twofold: the declaration, as a cardinal principle of all just law, of the God-given, unalienable rights possessed by every human being; and the example of our determination to secure those rights and to defend them against every challenge through the generations. Our declaration and defense of our rights have made us and kept us free and have sent a tide of hope and inspiration around the globe.

One of those unalienable rights, as the Declaration of Independence affirms so eloquently, is the right to life. In the 15 years since the Supreme Court's decision in *Roe v. Wade*, however, America's unborn have been denied their right to life. Among the tragic and unspeakable results in the past decade and a half have been the loss of life of 22 million infants before birth; the pressure and anguish of countless women and girls who are driven to abortion; and a cheapening of our respect for the human person and the sanctity of human life.

We are told that we may not interfere with abortion. We are told that we may not "impose our morality" on those who wish to allow or participate in the taking of the life of infants before birth; yet no one calls it "imposing morality" to prohibit the taking of life after people are born. We are told as well that there exists a "right" to end the lives of unborn children; yet no one can explain how such a right can exist in stark contradiction of each person's fundamental right to life.

That right to life belongs equally to babies in the womb, babies born handicapped, and the elderly or infirm. That we have killed the unborn for 15 years does not nullify this right, nor could any number of killings ever do so. The unalienable right to life is found not only in the Declaration of Independence but also in the Constitution that every President is sworn to preserve, protect, and defend. Both the Fifth and Fourteenth Amendments guarantee that no person shall be deprived of life without due process of law.

All medical and scientific evidence increasingly affirms that children before birth share all the basic attributes of human personality—that they in fact are persons. Modern medicine treats unborn children as patients. Yet, as the Supreme Court itself has noted, the decision in *Roe v. Wade* rested upon an earlier state of medical technology. The law of the land in 1988 should recognize all of the medical evidence.

Our Nation cannot continue down the path of abortion, so radically at odds with our history, our heritage, and our concepts of justice. This sacred legacy, and the well-being and the future of our country, demand that protection of the innocents must be guaranteed and that the personhood of the unborn be declared and defended throughout our land. In legislation introduced at my request in the First Session of the 100th Congress, I have asked the Legislative branch to declare the "humanity of the unborn child and the compelling interest of the several states to protect the life of each person before birth." This duty to declare on so fundamental a matter falls to the Executive as well. By this Proclamation I hereby do so.

NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children. Upon this act, sincerely believed to be an act of justice, warranted by the Constitution, I invoke the considerate judgment of mankind and the gracious favor of Almighty God. I also proclaim Sunday, January 17, 1988, as National Sanctity of Human Life Day. I call upon the citizens of this blessed land to gather on that day in their homes and places of worship to give thanks for the gift of life they enjoy and to reaffirm their commitment to the dignity of every human being and the sanctity of every human life.

IN WITNESS WHEREOF, I have hereunto set my hand this 14th day of January, in the year of our Lord nineteen hundred and eighty-eight, and of the Independence of the United States of America the two hundred and twelfth.

Ronald Reagan

National Sanctity of Human Life Day, 1988

By the President of the United States of America

A Proclamation

America has given a great gift to the world, a gift that drew upon the accumulated wisdom derived from centuries of experiments in self-government, a gift that has irrevocably changed humanity's future. Our gift is twofold: the declaration, as a cardinal principle of all just law, of the God-given, unalienable rights possessed by every human being; and the example of our determination to secure those rights and to defend them against every challenge through the generations. Our declaration and defense of our rights have made us and kept us free and have sent a tide of hope and inspiration around the globe.

One of those unalienable rights, as the Declaration of Independence affirms so eloquently, is the right to life. In the 15 years since the Supreme Court's decision in *Roe v. Wade,* however, America's unborn have been denied their right to life. Among the tragic and unspeakable results in the past decade and a half have been the loss of life of 22 million infants before birth; the pressure and anguish of countless women and girls who are driven to abortion; and a cheapening of our respect for the human person and the sanctity of human life.

We are told that we may not interfere with abortion. We are told that we may not "impose our morality" on those who wish to allow or participate in the taking of the life of infants before birth; yet no one calls it "imposing morality" to prohibit the taking of life after people are born. We are told as well that there exists a "right" to end the lives of unborn children; yet no one can explain how such a right can exist in stark contradiction of each person's fundamental right to life.

That right to life belongs equally to babies in the womb, babies born handicapped, and the elderly or infirm. That we have killed the unborn for 15 years does not nullify this right, nor could any number of killings ever do so. The unalienable right to life is found not only in the Declaration of Independence but also in the Constitution that every President is sworn to preserve, protect, and defend. Both the Fifth and Fourteenth Amendments guarantee that

no person shall be deprived of life without due process of law.

All medical and scientific evidence increasingly affirms that children before birth share all the basic attributes of human personality—that they in fact are persons. Modern medicine treats unborn children as patients. Yet, as the Supreme Court itself has noted, the decision in *Roe v. Wade* rested upon an earlier state of medical technology. The law of the land in 1988 should recognize all of the medical evidence.

Our Nation cannot continue down the path of abortion, so radically at odds with our history, our heritage, and our concepts of justice. This sacred legacy, and the well-being and the future of our country, demand that protection of the innocents must be guaranteed and that the personhood of the unborn be declared and defended throughout our land. In legislation introduced at my request in the First Session of the 100th Congress, I have asked the Legislative branch to declare the "humanity of the unborn child and the compelling interest of the several states to protect the life of each person before birth." This duty to declare on so fundamental a matter falls to the Executive as well. By this Proclamation I hereby do so.

NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim and declare the unalienable personhood of every American, from the moment of conception until natural death, and I do proclaim, ordain, and declare that I will take care that the Constitution and laws of the United States are faithfully executed for the protection of America's unborn children. Upon this act, sincerely believed to be an act of justice, warranted by the Constitution, I invoke the considerate judgment of mankind and the gracious favor of Almighty God. I also proclaim Sunday, January 17, 1988, as National Sanctity of Human Life Day. I call upon the citizens of this blessed land to gather on that day in their homes and places of worship to give thanks for the gift of life they enjoy and to reaffirm their commitment to the dignity of every human being and the sanctity of every human life.

IN WITNESS WHEREOF, I have hereunto set my hand this 14th day of January, in the year of our Lord nineteen hundred and eighty-eight, and of the Independence of the United States of America the two hundred and twelfth.

TENNESSEE SUPREME COURT
RULE 39. REHEARING

(a) On Petition; Grounds. — Rehearing may be granted by the Supreme Court, Court of Appeals, or Court of Criminal Appeals on its motion or on petition of a party. In determining whether to grant a rehearing, the following, while neither controlling nor fully measuring the court's discretion, indicate the character of reasons that will be considered: (1) the court's opinion incorrectly states the material facts established by the evidence and set forth in the record; (2) the court's opinion is in conflict with a statute, prior decision, or other principle of law; (3) the court's opinion overlooks or misapprehends a material fact or proposition of law; and (4) the court's opinion relies upon matters of fact or law upon which the parties have not been heard and that are open to reasonable dispute. A rehearing will not be granted to permit reargument of matters fully argued.

(b) Time; Content: Length. — A petition for rehearing must be filed with the clerk of the appellate court within 10 days after entry of judgment unless on motion the time is shortened or enlarged by the court or a judge thereof. Motions for extending time to file petitions for rehearing will be allowed only in extreme and unavoidable circumstances. The petition shall set forth the reasons the appellate court should reconsider, with proper references to the particular portions of the opinion, record or briefs relied upon. Except by permission of the court or a judge thereof, the petition shall not exceed 15 pages.

(c) Number of Copies; Service. — A sufficient number of copies of each petition shall be filed with the clerk of the appellate court to provide the clerk and each judge of the appellate court with one copy, and one copy shall be served on each party in the manner provided in Rule 20 for the service of papers unless the appellate court shall by order direct the filing or service of a greater or lesser number.

(d) Answer; Oral Argument. — No answer to the petition will be permitted unless requested by the court, but no action will be taken except to grant or deny rehearing. Oral argument will be permitted only if ordered by the court on its own motion.

(e) Action on the Petition; Subsequent Proceedings. — Rehearing will be granted if a majority of the members of the appellate court are satisfied rehearing is appropriate. If a petition is granted, the appellate court shall make such order as to reargument or resubmission as is deemed proper under the circumstances of the particular case.

(f) Limitation on Consecutive Petitions. — When the Court of Appeals or Court of Criminal Appeals has granted a petition for rehearing and entered judgment on rehearing, no further petitions for rehearing shall be filed in that court. No second petition for rehearing shall be filed in the Supreme Court except upon motion and leave granted by the court or a judge thereof.